

## Refine Search

### Search Results -

| Term   | Documents |
|--|-----------|
| @AY  | 29885254  |
| (22 AND (@AY > "2002")).PGPB,USPT,USOC,EPAB,JPAB,DWPI. | 0         |
| (L22@AY>2002).PGPB,USPT,USOC,EPAB,JPAB,DWPI.           | 0         |

Database:

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Search:

L23

Refine Search

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### Search History

DATE: Tuesday, January 22, 2008

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| <u>Set</u><br><u>Name</u>  | <u>Query</u>  | <u>Hit</u><br><u>Count</u> | <u>Set</u><br><u>Name</u><br>result<br>set |
|--|---|----------------------------|--|
| <i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=AND</i> |   |                            |  |
| <u>L23</u>   | L22@ay>2002   | 0                          | <u>L23</u>                                 |
| <u>L22</u>   | L21 and (dalton near nucleotide or kilodalton near nucleotide or kDa near nucleotide or Da near nucleotide or dalton near amino adj acid or kilodalton near amino adj acid or kDa near amino adj acid or Da near amino adj acid or dalton near protein or kilodalton near protein or kDa near protein or Da near protein) | 171                        | <u>L22</u>                                 |
| <u>L21</u>   | L19 and sample  | 411                        | <u>L21</u>                                 |
| <u>L20</u>   | L19 and dalton or kilodalton  | 12269                      | <u>L20</u>                                 |
| <u>L19</u>   | L17 not L18   | 411                        | <u>L19</u>                                 |
| <u>L18</u>   | L17@ay>2002   | 279                        | <u>L18</u>                                 |

|                     |  |        |                     |
|---------------------|--|--------|---------------------|
| <a href="#">L17</a> | L16 and (serum adj marker near amino adj acid or serum adj biomarker near amino adj acid or marker near amino adj acid or biomarker near amino adj acid or serum adj marker near protein or serum adj biomarker near protein or marker near protein or biomarker near protein) | 690    | <a href="#">L17</a> |
| <a href="#">L16</a> | L15 and (hepatocellular adj carcinoma or HCC near hepatocellular adj carcinoma)  | 2085   | <a href="#">L16</a> |
| <a href="#">L15</a> | L14 and (serum adj marker or serum adj biomarker or marker or biomarker)   | 2085   | <a href="#">L15</a> |
| <a href="#">L14</a> | L11 and (nucleotide.clm. or amino adj acid.clm. or protein.clm.)   | 2085   | <a href="#">L14</a> |
| <a href="#">L13</a> | L11 and protein.clm.   | 1259   | <a href="#">L13</a> |
| <a href="#">L12</a> | L11 and (hepatocellular adj carcinoma.clm.)  | 86     | <a href="#">L12</a> |
| <a href="#">L11</a> | L10 and hepatocellular adj carcinoma   | 2482   | <a href="#">L11</a> |
| <a href="#">L10</a> | L9 and (dalton or kilodalton or kDa or Da)   | 2482   | <a href="#">L10</a> |
| <a href="#">L9</a>  | L8 and (method near diagnos\$ or method near determin\$ or method near identi\$ or method near analyz\$ or method near target\$)   | 2482   | <a href="#">L9</a>  |
| <a href="#">L8</a>  | L6 and method  | 3283   | <a href="#">L8</a>  |
| <a href="#">L7</a>  | L6 and (sample or fluid or serum)  | 3283   | <a href="#">L7</a>  |
| <a href="#">L6</a>  | L5 and (sample or fluid or serum or plasma)  | 3284   | <a href="#">L6</a>  |
| <a href="#">L5</a>  | L1 and L2 and L3 and L4  | 3304   | <a href="#">L5</a>  |
| <a href="#">L4</a>  | nucleotide or amino adj acid or protein  | 741296 | <a href="#">L4</a>  |
| <a href="#">L3</a>  | serum adj marker or serum adj biomarker or marker or biomarker   | 305573 | <a href="#">L3</a>  |
| <a href="#">L2</a>  | dalton or kilodalton or kDa or Da or ,000 near dalton or ,000 near Da  | 290723 | <a href="#">L2</a>  |
| <a href="#">L1</a>  | hepatocellular adj carcinoma   | 8662   | <a href="#">L1</a>  |

END OF SEARCH HISTORY

## Refine Search

Your wildcard search against 10000 terms has yielded the results below.

***Your result set for the last L# is incomplete.***

The probable cause is use of unlimited truncation. Revise your search strategy to use limited truncation.

### Search Results -

| Term  | Documents |
|---|-----------|
| METHOD  | 10569984  |
| METHODS   | 2725139   |
| DIAGNOSS  | 0         |
| DIAGNOS   | 210       |
| DIAGNOSA  | 1         |
| DIAGNOSABILITIES  | 1         |
| DIAGNOSABILITY  | 167       |
| DIAGNOSABILITY-IDENTIFYING  | 1         |
| DIAGNOSABILTY   | 3         |
| DIAGNOSABLE   | 672       |
| DIAGNOSABLE-ALTHOUGH  | 1         |
| (L61 AND (METHOD NEAR DIAGNOSS OR METHOD NEAR DETERMINS OR METHOD NEAR IDENTIS OR METHOD NEAR ANALYZS OR METHOD NEAR TARGETS)).PGPB,USPT,USOC,EPAB,JPAB,DWPI. | 1984      |

There are more results than shown above. [Click here to view the entire set.](#)

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| <u>L62</u>   | L61 and (method near diagnos\$ or method near determin\$ or method near identi\$ or method near analyz\$ or method near target\$) | 1984                       | <u>L62</u>                                 |
| <u>L61</u>   | L60 and (sample or fluid or serum)  | 2515                       | <u>L61</u>                                 |
| <u>L60</u>   | L59 and (nucleotide.clm. or amino adj acid.clm. or protein.clm.)  | 2525                       | <u>L60</u>                                 |
| <u>L59</u>   | L58 and method  | 3066                       | <u>L59</u>                                 |
| <u>L58</u>   | L57 and (nucleotide or amino acid or protein)   | 3067                       | <u>L58</u>                                 |
| <u>L57</u>   | L56 and L26   | 3067                       | <u>L57</u>                                 |
| <u>L56</u>   | L24 and (dalton or kilodalton or kDa)   | 3790                       | <u>L56</u>                                 |
| <u>L55</u>   | L51 not L54   | 208                        | <u>L55</u>                                 |
| <u>L54</u>   | L51@py>2002   | 712                        | <u>L54</u>                                 |
| <u>L53</u>   | L51 not L52   | 486                        | <u>L53</u>                                 |
| <u>L52</u>   | L51@ay>2002   | 434                        | <u>L52</u>                                 |
| <u>L51</u>   | L50 (method near diagnos\$ or method near determin\$ or method near identi\$ or method near analyz\$ or method near target\$)     | 920                        | <u>L51</u>                                 |
| <u>L50</u>   | L47 and (sample or fluid or serum)  | 1140                       | <u>L50</u>                                 |
| <u>L49</u>   | L47 and (sample or serum)   | 1140                       | <u>L49</u>                                 |
| <u>L48</u>   | L47@ay>2002   | 532                        | <u>L48</u>                                 |
| <u>L47</u>   | L46 and method  | 1141                       | <u>L47</u>                                 |
| <u>L46</u>   | L45 and (hepatocellular adj carcinoma)  | 1141                       | <u>L46</u>                                 |
| <u>L45</u>   | L43 and (nucleotide.clm. or amino adj acid.clm. or protein.clm.)  | 1141                       | <u>L45</u>                                 |
| <u>L44</u>   | L43@ay>2002   | 647                        | <u>L44</u>                                 |
| <u>L43</u>   | L42 and (dalton\$ or kilodalton\$)  | 1359                       | <u>L43</u>                                 |
| <u>L42</u>   | L38 and (daltons or dalton or kilodalton or kDa or (molecular adj weight near dalton))  | 2909                       | <u>L42</u>                                 |
| <u>L41</u>   | L39 not L40   | 28                         | <u>L41</u>                                 |
| <u>L40</u>   | L39@ay>2002   | 68                         | <u>L40</u>                                 |
| <u>L39</u>   | L38 and (hepatocellular adj carcinoma.clm. or hepato-cellular adj carcinoma.clm.)   | 96                         | <u>L39</u>                                 |
| <u>L38</u>   | L37 and method  | 2909                       | <u>L38</u>                                 |
| <u>L37</u>   | L36 and (nucleotide or amino acid or protein)   | 2910                       | <u>L37</u>                                 |
| <u>L36</u>   | L35 and L26   | 2910                       | <u>L36</u>                                 |
| <u>L35</u>   | L24 and L34   | 3600                       | <u>L35</u>                                 |
| <u>L34</u>   | daltons or dalton or kDA or (molecular adj weight near dalton)  | 113962                     | <u>L34</u>                                 |
| <u>L33</u>   | daltons or dalton or kDA or molecular adj weight near dalton  | 113962                     | <u>L33</u>                                 |
| <u>L32</u>   | L30 not L31   | 6                          | <u>L32</u>                                 |
| <u>L31</u>   | L30@ay>2002   | 15                         | <u>L31</u>                                 |
| <u>L30</u>   | L29 and (L24 near protein)  | 21                         | <u>L30</u>                                 |



|            |   |         |            |
|------------|---|---------|------------|
| <u>L29</u> | L28 and method  | 4745    | <u>L29</u> |
| <u>L28</u> | L27 and (nucleotide or amino acid or protein)   | 4748    | <u>L28</u> |
| <u>L27</u> | L24 and L25 and L26   | 4755    | <u>L27</u> |
| <u>L26</u> | serum adj marker or serum adj biomarker or marker or biomarker  | 305573  | <u>L26</u> |
| <u>L25</u> | daltons or dalton or kDa or da or molecular weight  | 1024782 | <u>L25</u> |
| <u>L24</u> | hepatocellular adj carcinoma or hepato-cellular adj carcinoma   | 8708    | <u>L24</u> |
| <u>L23</u> | L22@ay>2002   | 0       | <u>L23</u> |
| <u>L22</u> | L21 and (dalton near nucleotide or kilodalton near nucleotide or kDa near nucleotide or Da near nucleotide or dalton near amino adj acid or kilodalton near amino adj acid or kDa near amino adj acid or Da near amino adj acid or dalton near protein or kilodalton near protein or kDa near protein or Da near protein) | 171     | <u>L22</u> |
| <u>L21</u> | L19 and sample  | 411     | <u>L21</u> |
| <u>L20</u> | L19 and dalton or kilodalton  | 12269   | <u>L20</u> |
| <u>L19</u> | L17 not L18   | 411     | <u>L19</u> |
| <u>L18</u> | L17@ay>2002   | 279     | <u>L18</u> |
| <u>L17</u> | L16 and (serum adj marker near amino adj acid or serum adj biomarker near amino adj acid or marker near amino adj acid or biomarker near amino adj acid or serum adj marker near protein or serum adj biomarker near protein or marker near protein or biomarker near protein)  | 690     | <u>L17</u> |
| <u>L16</u> | L15 and (hepatocellular adj carcinoma or HCC near hepatocellular adj carcinoma)   | 2085    | <u>L16</u> |
| <u>L15</u> | L14 and (serum adj marker or serum adj biomarker or marker or biomarker)  | 2085    | <u>L15</u> |
| <u>L14</u> | L11 and (nucleotide.clm. or amino adj acid.clm. or protein.clm.)  | 2085    | <u>L14</u> |
| <u>L13</u> | L11 and protein.clm.  | 1259    | <u>L13</u> |
| <u>L12</u> | L11 and (hepatocellular adj carcinoma.clm.)   | 86      | <u>L12</u> |
| <u>L11</u> | L10 and hepatocellular adj carcinoma  | 2482    | <u>L11</u> |
| <u>L10</u> | L9 and (dalton or kilodalton or kDa or Da)  | 2482    | <u>L10</u> |
| <u>L9</u>  | L8 and (method near diagnos\$ or method near determin\$ or method near identi\$ or method near analyz\$ or method near target\$)  | 2482    | <u>L9</u>  |
| <u>L8</u>  | L6 and method   | 3283    | <u>L8</u>  |
| <u>L7</u>  | L6 and (sample or fluid or serum)   | 3283    | <u>L7</u>  |
| <u>L6</u>  | L5 and (sample or fluid or serum or plasma)   | 3284    | <u>L6</u>  |
| <u>L5</u>  | L1 and L2 and L3 and L4   | 3304    | <u>L5</u>  |
| <u>L4</u>  | nucleotide or amino adj acid or protein   | 741296  | <u>L4</u>  |
| <u>L3</u>  | serum adj marker or serum adj biomarker or marker or biomarker  | 305573  | <u>L3</u>  |
| <u>L2</u>  | dalton or kilodalton or kDa or Da or ,000 near dalton or ,000 near Da   | 290723  | <u>L2</u>  |
| <u>L1</u>  | hepatocellular adj carcinoma  | 8662    | <u>L1</u>  |

END OF SEARCH HISTORY

## Refine Search

### Search Results -

| Term  | Documents |
|---|-----------|
| CHAN  | 260962    |
| CHANS   | 302       |
| HEPATOCELLULAR  | 11152     |
| HEPATOCELLULARS   | 0         |
| (HEPATOCELLULAR AND<br>(CHAN.IN.)).PGPB,USPT,USOC,EPAB,JPAB,DWPI. | 86        |
| (CHAN.IN. AND<br>HEPATOCELLULAR).PGPB,USPT,USOC,EPAB,JPAB,DWPI.   | 86        |

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Search:

L67





### Search History

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**Set**  
**Name Query**  
 side by  
 side

**Hit**  
**Count**  
**Set**  
**Name**  
 result  
 set

DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=AND

|                     |                                  |      |                     |
|---------------------|----------------------------------|------|---------------------|
| <a href="#">L67</a> | chan.in. and hepatocellular      | 86   | <a href="#">L67</a> |
| <a href="#">L66</a> | johnson-p.in. and hepatocellular | 1    | <a href="#">L66</a> |
| <a href="#">L65</a> | poon.in. and hepatocellular      | 10   | <a href="#">L65</a> |
| <a href="#">L64</a> | L63 and hepatocellular           | 4    | <a href="#">L64</a> |
| <a href="#">L63</a> | yip.in.                          | 1732 | <a href="#">L63</a> |

|            |   |         |            |
|------------|---|---------|------------|
| <u>L62</u> | L61 and (method near diagnos\$ or method near determin\$ or method near identi\$ or method near analyz\$ or method near target\$) | 1984    | <u>L62</u> |
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| <u>L58</u> | L57 and (nucleotide or amino acid or protein)   | 3067    | <u>L58</u> |
| <u>L57</u> | L56 and L26   | 3067    | <u>L57</u> |
| <u>L56</u> | L24 and (dalton or kilodalton or kDa)   | 3790    | <u>L56</u> |
| <u>L55</u> | L51 not L54   | 208     | <u>L55</u> |
| <u>L54</u> | L51@py>2002   | 712     | <u>L54</u> |
| <u>L53</u> | L51 not L52   | 486     | <u>L53</u> |
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| <u>L51</u> | L50 (method near diagnos\$ or method near determin\$ or method near identi\$ or method near analyz\$ or method near target\$)     | 920     | <u>L51</u> |
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| <u>L49</u> | L47 and (sample or serum)   | 1140    | <u>L49</u> |
| <u>L48</u> | L47@ay>2002   | 532     | <u>L48</u> |
| <u>L47</u> | L46 and method  | 1141    | <u>L47</u> |
| <u>L46</u> | L45 and (hepatocellular adj carcinoma)  | 1141    | <u>L46</u> |
| <u>L45</u> | L43 and (nucleotide.clm. or amino adj acid.clm. or protein.clm.)  | 1141    | <u>L45</u> |
| <u>L44</u> | L43@ay>2002   | 647     | <u>L44</u> |
| <u>L43</u> | L42 and (dalton\$ or kilodalton\$)  | 1359    | <u>L43</u> |
| <u>L42</u> | L38 and (daltons or dalton or kilodalton or kDa or (molecular adj weight near dalton))  | 2909    | <u>L42</u> |
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| <u>L25</u> | daltons or dalton or kDA or da or molecular weight  | 1024782 | <u>L25</u> |

|                     |   |        |                     |
|---------------------|---|--------|---------------------|
| <a href="#">L24</a> | hepatocellular adj carcinoma or hepato-cellular adj carcinoma   | 8708   | <a href="#">L24</a> |
| <a href="#">L23</a> | L22@ay>2002   | 0      | <a href="#">L23</a> |
| <a href="#">L22</a> | L21 and (dalton near nucleotide or kilodalton near nucleotide or kDa near nucleotide or Da near nucleotide or dalton near amino adj acid or kilodalton near amino adj acid or kDa near amino adj acid or Da near amino adj acid or dalton near protein or kilodalton near protein or kDa near protein or Da near protein) | 171    | <a href="#">L22</a> |
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| <a href="#">L5</a>  | L1 and L2 and L3 and L4   | 3304   | <a href="#">L5</a>  |
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| <u>Set</u><br><u>Name</u> <u>Query</u><br>side by<br>side                | <u>Hit</u><br><u>Count</u> | <u>Set</u><br><u>Name</u><br>result<br>set |
|--|----------------------------|--|
| <i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=AND</i> |                            |  |
| <u>L67</u> chan.in. and hepatocellular                                   | 86                         | <u>L67</u>                                 |
| <u>L66</u> johnson-p.in. and hepatocellular                              | 1                          | <u>L66</u>                                 |
| <u>L65</u> poon.in. and hepatocellular                                   | 10                         | <u>L65</u>                                 |
| <u>L64</u> L63 and hepatocellular  | 4                          | <u>L64</u>                                 |
| <u>L63</u> yip.in.   | 1732                       | <u>L63</u>                                 |

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| <a href="#">L62</a> | L61 and (method near diagnos\$ or method near determin\$ or method near identi\$ or method near analyz\$ or method near target\$) | 1984    | <a href="#">L62</a> |
| <a href="#">L61</a> | L60 and (sample or fluid or serum)  | 2515    | <a href="#">L61</a> |
| <a href="#">L60</a> | L59 and (nucleotide.clm. or amino adj acid.clm. or protein.clm.)  | 2525    | <a href="#">L60</a> |
| <a href="#">L59</a> | L58 and method  | 3066    | <a href="#">L59</a> |
| <a href="#">L58</a> | L57 and (nucleotide or amino acid or protein)   | 3067    | <a href="#">L58</a> |
| <a href="#">L57</a> | L56 and L26   | 3067    | <a href="#">L57</a> |
| <a href="#">L56</a> | L24 and (dalton or kilodalton or kDa)   | 3790    | <a href="#">L56</a> |
| <a href="#">L55</a> | L51 not L54   | 208     | <a href="#">L55</a> |
| <a href="#">L54</a> | L51@py>2002   | 712     | <a href="#">L54</a> |
| <a href="#">L53</a> | L51 not L52   | 486     | <a href="#">L53</a> |
| <a href="#">L52</a> | L51@ay>2002   | 434     | <a href="#">L52</a> |
| <a href="#">L51</a> | L50 (method near diagnos\$ or method near determin\$ or method near identi\$ or method near analyz\$ or method near target\$)     | 920     | <a href="#">L51</a> |
| <a href="#">L50</a> | L47 and (sample or fluid or serum)  | 1140    | <a href="#">L50</a> |
| <a href="#">L49</a> | L47 and (sample or serum)   | 1140    | <a href="#">L49</a> |
| <a href="#">L48</a> | L47@ay>2002   | 532     | <a href="#">L48</a> |
| <a href="#">L47</a> | L46 and method  | 1141    | <a href="#">L47</a> |
| <a href="#">L46</a> | L45 and (hepatocellular adj carcinoma)  | 1141    | <a href="#">L46</a> |
| <a href="#">L45</a> | L43 and (nucleotide.clm. or amino adj acid.clm. or protein.clm.)  | 1141    | <a href="#">L45</a> |
| <a href="#">L44</a> | L43@ay>2002   | 647     | <a href="#">L44</a> |
| <a href="#">L43</a> | L42 and (dalton\$ or kilodalton\$)  | 1359    | <a href="#">L43</a> |
| <a href="#">L42</a> | L38 and (daltons or dalton or kilodalton or kDa or (molecular adj weight near dalton))  | 2909    | <a href="#">L42</a> |
| <a href="#">L41</a> | L39 not L40   | 28      | <a href="#">L41</a> |
| <a href="#">L40</a> | L39@ay>2002   | 68      | <a href="#">L40</a> |
| <a href="#">L39</a> | L38 and (hepatocellular adj carcinoma.clm. or hepato-cellular adj carcinoma.clm.)   | 96      | <a href="#">L39</a> |
| <a href="#">L38</a> | L37 and method  | 2909    | <a href="#">L38</a> |
| <a href="#">L37</a> | L36 and (nucleotide or amino acid or protein)   | 2910    | <a href="#">L37</a> |
| <a href="#">L36</a> | L35 and L26   | 2910    | <a href="#">L36</a> |
| <a href="#">L35</a> | L24 and L34   | 3600    | <a href="#">L35</a> |
| <a href="#">L34</a> | daltons or dalton or kDA or (molecular adj weight near dalton)  | 113962  | <a href="#">L34</a> |
| <a href="#">L33</a> | daltons or dalton or kDA or molecular adj weight near dalton  | 113962  | <a href="#">L33</a> |
| <a href="#">L32</a> | L30 not L31   | 6       | <a href="#">L32</a> |
| <a href="#">L31</a> | L30@ay>2002   | 15      | <a href="#">L31</a> |
| <a href="#">L30</a> | L29 and (L24 near protein)  | 21      | <a href="#">L30</a> |
| <a href="#">L29</a> | L28 and method  | 4745    | <a href="#">L29</a> |
| <a href="#">L28</a> | L27 and (nucleotide or amino acid or protein)   | 4748    | <a href="#">L28</a> |
| <a href="#">L27</a> | L24 and L25 and L26   | 4755    | <a href="#">L27</a> |
| <a href="#">L26</a> | serum adj marker or serum adj biomarker or marker or biomarker  | 305573  | <a href="#">L26</a> |
| <a href="#">L25</a> | daltons or dalton or kDA or da or molecular weight  | 1024782 | <a href="#">L25</a> |

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|---------------------|---|--------|---------------------|
| <a href="#">L24</a> | hepatocellular adj carcinoma or hepato-cellular adj carcinoma   | 8708   | <a href="#">L24</a> |
| <a href="#">L23</a> | L22@ay>2002   | 0      | <a href="#">L23</a> |
| <a href="#">L22</a> | L21 and (dalton near nucleotide or kilodalton near nucleotide or kDa near nucleotide or Da near nucleotide or dalton near amino adj acid or kilodalton near amino adj acid or kDa near amino adj acid or Da near amino adj acid or dalton near protein or kilodalton near protein or kDa near protein or Da near protein) | 171    | <a href="#">L22</a> |
| <a href="#">L21</a> | L19 and sample  | 411    | <a href="#">L21</a> |
| <a href="#">L20</a> | L19 and dalton or kilodalton  | 12269  | <a href="#">L20</a> |
| <a href="#">L19</a> | L17 not L18   | 411    | <a href="#">L19</a> |
| <a href="#">L18</a> | L17@ay>2002   | 279    | <a href="#">L18</a> |
| <a href="#">L17</a> | L16 and (serum adj marker near amino adj acid or serum adj biomarker near amino adj acid or marker near amino adj acid or biomarker near amino adj acid or serum adj marker near protein or serum adj biomarker near protein or marker near protein or biomarker near protein)  | 690    | <a href="#">L17</a> |
| <a href="#">L16</a> | L15 and (hepatocellular adj carcinoma or HCC near hepatocellular adj carcinoma)   | 2085   | <a href="#">L16</a> |
| <a href="#">L15</a> | L14 and (serum adj marker or serum adj biomarker or marker or biomarker)  | 2085   | <a href="#">L15</a> |
| <a href="#">L14</a> | L11 and (nucleotide.clm. or amino adj acid.clm. or protein.clm.)  | 2085   | <a href="#">L14</a> |
| <a href="#">L13</a> | L11 and protein.clm.  | 1259   | <a href="#">L13</a> |
| <a href="#">L12</a> | L11 and (hepatocellular adj carcinoma.clm.)   | 86     | <a href="#">L12</a> |
| <a href="#">L11</a> | L10 and hepatocellular adj carcinoma  | 2482   | <a href="#">L11</a> |
| <a href="#">L10</a> | L9 and (dalton or kilodalton or kDa or Da)  | 2482   | <a href="#">L10</a> |
| <a href="#">L9</a>  | L8 and (method near diagnos\$ or method near determin\$ or method near identi\$ or method near analyz\$ or method near target\$)  | 2482   | <a href="#">L9</a>  |
| <a href="#">L8</a>  | L6 and method   | 3283   | <a href="#">L8</a>  |
| <a href="#">L7</a>  | L6 and (sample or fluid or serum)   | 3283   | <a href="#">L7</a>  |
| <a href="#">L6</a>  | L5 and (sample or fluid or serum or plasma)   | 3284   | <a href="#">L6</a>  |
| <a href="#">L5</a>  | L1 and L2 and L3 and L4   | 3304   | <a href="#">L5</a>  |
| <a href="#">L4</a>  | nucleotide or amino adj acid or protein   | 741296 | <a href="#">L4</a>  |
| <a href="#">L3</a>  | serum adj marker or serum adj biomarker or marker or biomarker  | 305573 | <a href="#">L3</a>  |
| <a href="#">L2</a>  | dalton or kilodalton or kDa or Da or ,000 near dalton or ,000 near Da   | 290723 | <a href="#">L2</a>  |
| <a href="#">L1</a>  | hepatocellular adj carcinoma  | 8662   | <a href="#">L1</a>  |

END OF SEARCH HISTORY

# Untitled

? e au=yip-tai-tung.in.

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|-----|-------|--------------------------|
| E1  | 1     | AU=YIP-SNEIDER MICHELE T |
| E2  | 1     | AU=YIP-SNEIDER MT        |
| E3  | 0     | AU=YIP-TAI-TUNG.IN.      |
| E4  | 25    | AU=YIP-WAH CHUNG         |
| E5  | 2     | AU=YIP-WAH, C.           |
| E6  | 1     | AU=YIP-WONG, K.          |
| E7  | 8     | AU=YIP, A                |
| E8  | 14    | AU=YIP, A.               |
| E9  | 1     | AU=YIP, A. C.            |
| E10 | 3     | AU=YIP, A. G.            |
| E11 | 3     | AU=YIP, A. L. M.         |
| E12 | 12    | AU=YIP, A. M.            |
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| E14 | 1     | AU=YIP, A. N.            |
| E15 | 5     | AU=YIP, A. S. K.         |
| E16 | 1     | AU=YIP, A. T.            |
| E17 | 2     | AU=YIP, A. W.            |
| E18 | 8     | AU=YIP, A. W. C.         |
| E19 | 2     | AU=YIP, A. Y.            |
| E20 | 4     | AU=YIP, A. Y. N.         |
| E21 | 1     | AU=YIP, A. Y. S.         |
| E22 | 1     | AU=YIP, A. Y.-W          |
| E23 | 2     | AU=YIP, A.M.             |
| E24 | 2     | AU=YIP, A.Y.-W.          |
| E25 | 1     | AU=YIP, ADRIAN YUN-SAN   |

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| E2  | 1     | AU=YIP, T-T.              |
| E3  | 0     | AU=YIP, T?                |
| E4  | 1     | AU=YIP, TA-TUNG           |
| E5  | 1     | AU=YIP, TAI T.            |
| E6  | 35    | AU=YIP, TAI TUNG          |
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| E11 | 2     | AU=YIP, TERENCE           |
| E12 | 2     | AU=YIP, TERENCE POK SIU   |
| E13 | 1     | AU=YIP, TERESA            |
| E14 | 2     | AU=YIP, TERESA M.         |
| E15 | 1     | AU=YIP, TERRANCE          |
| E16 | 1     | AU=YIP, TERRANCE P        |
| E17 | 1     | AU=YIP, TERRANCE P.       |
| E18 | 1     | AU=YIP, TERRY SIU-HAN     |
| E19 | 2     | AU=YIP, THOMAS            |
| E20 | 1     | AU=YIP, THOMAS C.         |
| E21 | 1     | AU=YIP, THOMAS W. S.      |
| E22 | 1     | AU=YIP, THOMAS W.S.       |
| E23 | 1     | AU=YIP, THOMAS WAI-CHEONG |
| E24 | 1     | AU=YIP, TIAN SIANG        |
| E25 | 12    | AU=YIP, TICK HON          |

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|   |                 |
|---|-----------------|
| 1 | AU=YIP, TA-TUNG |
| 1 | AU=YIP, TAI T.  |



35 AU=YIP, TAI TUNG  
75 AU=YIP, TAI-TUNG  
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| E2  | 1     | AU=POON, T.W.H.            |
| E3  | 0     | AU=POON, T?                |
| E4  | 2     | AU=POON, TAK               |
| E5  | 1     | AU=POON, TAK C.            |
| E6  | 1     | AU=POON, TAK-LAP           |
| E7  | 1     | AU=POON, TAK-SUN           |
| E8  | 21    | AU=POON, TERENCE C. W.     |
| E9  | 1     | AU=POON, TERENCE C.W.      |
| E10 | 1     | AU=POON, TERENCE CHEUN WAI |
| E11 | 1     | AU=POON, TERENCE CHUEN-WAI |
| E12 | 1     | AU=POON, TERENCE CW        |
| E13 | 1     | AU=POON, TERENCE K.        |
| E14 | 5     | AU=POON, TERENCE S. C.     |
| E15 | 1     | AU=POON, TERESA K. Y.      |
| E16 | 1     | AU=POON, TERRENCE          |
| E17 | 2     | AU=POON, TERRI             |
| E18 | 1     | AU=POON, TERRI H.          |
| E19 | 1     | AU=POON, TERRY             |
| E20 | 1     | AU=POON, TH                |
| E21 | 86    | AU=POON, THOMAS            |
| E22 | 4     | AU=POON, THOMAS H. W       |
| E23 | 11    | AU=POON, THOMAS H. W.      |
| E24 | 1     | AU=POON, THOMAS HONCHIU    |
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1 AU=POON, TERENCE C.W.  
1 AU=POON, TERENCE CHEUN WAI  
1 AU=POON, TERENCE CHUEN-WAI  
1 AU=POON, TERENCE CW  
1 AU=POON, TERENCE K.  
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? e au=johnson, p?

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| E2  | 1     | AU=JOHNSON, P,       |
| E3  | 0     | AU=JOHNSON, P?       |
| E4  | 65    | AU=JOHNSON, PA       |
| E5  | 2     | AU=JOHNSON, PA*      |
| E6  | 3     | AU=JOHNSON, PAGE     |
| E7  | 2     | AU=JOHNSON, PAIGE E. |
| E8  | 1     | AU=JOHNSON, PAIGE I. |

# Untitled

E9 4 AU=JOHNSON, PAIGE L.  
 E10 28 AU=JOHNSON, PALEY  
 E11 1 AU=JOHNSON, PALMER OLIVER  
 E12 20 AU=JOHNSON, PAM  
 E13 3 AU=JOHNSON, PAM M.  
 E14 1 AU=JOHNSON, PAM MCALLISTER  
 E15 1 AU=JOHNSON, PAMALA  
 E16 24 AU=JOHNSON, PAMELA  
 E17 1 AU=JOHNSON, PAMELA ADAMS  
 E18 2 AU=JOHNSON, PAMELA ANN  
 E19 1 AU=JOHNSON, PAMELA CAROL  
 E20 1 AU=JOHNSON, PAMELA D.  
 E21 1 AU=JOHNSON, PAMELA DIANE  
 E22 1 AU=JOHNSON, PAMELA E.  
 E23 1 AU=JOHNSON, PAMELA ESTHER  
 E24 1 AU=JOHNSON, PAMELA G.  
 E25 2 AU=JOHNSON, PAMELA GAIL  
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| E1  | 1     | AU=POON, PETULA             |
| E2  | 12    | AU=POON, PH                 |
| E3  | 0     | AU=POON, PH?                |
| E4  | 2     | AU=POON, PHILIP             |
| E5  | 5     | AU=POON, PHILIP K. C.       |
| E6  | 4     | AU=POON, PHILLIP            |
| E7  | 2     | AU=POON, PHOENIX S. Y.      |
| E8  | 3     | AU=POON, PMK                |
| E9  | 14    | AU=POON, PO S.              |
| E10 | 1     | AU=POON, PO. S.             |
| E11 | 4     | AU=POON, POLLY M. S.        |
| E12 | 1     | AU=POON, POLLY M.S.         |
| E13 | 1     | AU=POON, POPO               |
| E14 | 4     | AU=POON, PP                 |
| E15 | 1     | AU=POON, PRISCILLA          |
| E16 | 10    | AU=POON, PRISCILLA M. K.    |
| E17 | 2     | AU=POON, PRISCILLA M.K.     |
| E18 | 3     | AU=POON, PRISCILLA MIU-KUEN |
| E19 | 2     | AU=POON, PS                 |
| E20 | 1     | AU=POON, PUI HAN WINNIE     |
| E21 | 1     | AU=POON, PW                 |
| E22 | 1     | AU=POON, PW-F               |
| E23 | 16    | AU=POON, PWF                |
| E24 | 2     | AU=POON, PWF*               |
| E25 | 3     | AU=POON, PY                 |

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>>>W: Character "-" in invalid position  
 >>>E: There is no result

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|    |    |                        |
|----|----|------------------------|
|    | 12 | AU=POON, PH            |
|    | 0  | AU=POON, PH?           |
|    | 2  | AU=POON, PHILIP        |
|    | 5  | AU=POON, PHILIP K. C.  |
|    | 4  | AU=POON, PHILLIP       |
|    | 2  | AU=POON, PHOENIX S. Y. |
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? e au=yip, v?

| Ref | Items | Index-term                |
|-----|-------|---------------------------|
| E1  | 1     | AU=YIP, V. S.             |
| E2  | 1     | AU=YIP, V.F.S.            |
| E3  | 0     | AU=YIP, V?                |
| E4  | 5     | AU=YIP, VERA              |
| E5  | 4     | AU=YIP, VERONICA          |
| E6  | 4     | AU=YIP, VICTOR            |
| E7  | 2     | AU=YIP, VICTOR F.         |
| E8  | 1     | AU=YIP, VINCENT F.        |
| E9  | 5     | AU=YIP, VINCENT F. S.     |
| E10 | 1     | AU=YIP, VINCENT FOOK SENG |
| E11 | 2     | AU=YIP, VIRGINIA          |
| E12 | 1     | AU=YIP, VIRGINIA CHOY-YIN |
| E13 | 2     | AU=YIP, VIVIAN            |
| E14 | 1     | AU=YIP, VIVIAN L.         |
| E15 | 3     | AU=YIP, VIVIAN L. Y       |
| E16 | 27    | AU=YIP, VIVIAN L. Y.      |
| E17 | 1     | AU=YIP, VIVIAN L.Y.       |
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| E20 | 1     | AU=YIP, VS                |
| E21 | 2     | AU=YIP, W                 |
| E22 | 41    | AU=YIP, W.                |
| E23 | 5     | AU=YIP, W. C              |
| E24 | 18    | AU=YIP, W. C.             |
| E25 | 15    | AU=YIP, W. C. L.          |

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? e au=yip, christine?

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| E1  | 4     | AU=YIP, CHRISTINE L.                              |
| E2  | 1     | AU=YIP, CHRISTINE N. B. LAU                       |
| E3  | 0     | AU=YIP, CHRISTINE?                                |
| E4  | 4     | AU=YIP, CHRISTOPHER                               |
| E5  | 1     | AU=YIP, CHRISTOPHER LEE                           |
| E6  | 16    | AU=YIP, CHRISTOPHER M                             |
| E7  | 70    | AU=YIP, CHRISTOPHER M.                            |
| E8  | 2     | AU=YIP, CHRISTOPHER M. (UNIVERSITY OF TORONTO, ON |
| E9  | 2     | AU=YIP, CHRISTOPHER MIN-FAR                       |
| E10 | 1     | AU=YIP, CHUN K                                    |
| E11 | 1     | AU=YIP, CHUN K.                                   |
| E12 | 1     | AU=YIP, CHUN KIT                                  |
| E13 | 1     | AU=YIP, CHUN SENG                                 |
| E14 | 1     | AU=YIP, CHUN-SHING                                |
| E15 | 3     | AU=YIP, CHUN-WING                                 |
| E16 | 2     | AU=YIP, CHUN-YU                                   |
| E17 | 1     | AU=YIP, CHUNG-WING                                |
| E18 | 1     | AU=YIP, CK  |
| E19 | 1     | AU=YIP, CKM                                       |
| E20 | 2     | AU=YIP, CL  |
| E21 | 1     | AU=YIP, CLARWYN                                   |

# Untitled

E22 1 AU=YIP, CLEO  
 E23 1 AU=YIP, CLEO K.M.  
 E24 2 AU=YIP, CLIFFORD  
 E25 2 AU=YIP, CLT  
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? s e1-e3  
 4 AU=YIP, CHRISTINE L.  
 1 AU=YIP, CHRISTINE N. B. LAU  
 0 AU=YIP, CHRISTINE?  
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? e au=chan, anthony  
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 E3 1 AU=CHAN, ANTHONY A  
 E4 9 AU=CHAN, ANTHONY A.  
 E5 1 AU=CHAN, ANTHONY ARTHUR  
 E6 1 AU=CHAN, ANTHONY BERNARD  
 E7 4 AU=CHAN, ANTHONY C.-T.  
 E8 2 AU=CHAN, ANTHONY CHIH-TUNG  
 E9 2 AU=CHAN, ANTHONY CHO-LAI  
 E10 1 AU=CHAN, ANTHONY CHUNG-FUNG  
 E11 1 AU=CHAN, ANTHONY CT  
 E12 1 AU=CHAN, ANTHONY G.  
 E13 1 AU=CHAN, ANTHONY K C  
 E14 9 AU=CHAN, ANTHONY K.  
 E15 1 AU=CHAN, ANTHONY K. C  
 E16 40 AU=CHAN, ANTHONY K. C.  
 E17 2 AU=CHAN, ANTHONY K.C.  
 E18 5 AU=CHAN, ANTHONY KAM CHUEN  
 E19 2 AU=CHAN, ANTHONY KAM-YIN  
 E20 1 AU=CHAN, ANTHONY KIN WANG  
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 E23 1 AU=CHAN, ANTHONY RIVERA  
 E24 18 AU=CHAN, ANTHONY S. L.  
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 1 AU=CHAN, ANTHONY A  
 9 AU=CHAN, ANTHONY A.  
 1 AU=CHAN, ANTHONY ARTHUR  
 1 AU=CHAN, ANTHONY BERNARD  
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 2 AU=CHAN, ANTHONY CHIH-TUNG  
 2 AU=CHAN, ANTHONY CHO-LAI  
 1 AU=CHAN, ANTHONY CHUNG-FUNG  
 1 AU=CHAN, ANTHONY CT  
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 1 AU=CHAN, ANTHONY K C  
 9 AU=CHAN, ANTHONY K.  
 1 AU=CHAN, ANTHONY K. C

# Untitled

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40  AU=CHAN, ANTHONY K. C.
2   AU=CHAN, ANTHONY K.C.
5   AU=CHAN, ANTHONY KAM CHUEN
2   AU=CHAN, ANTHONY KAM-YIN
1   AU=CHAN, ANTHONY KIN WANG
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1   AU=CHAN, ANTHONY KWOK-HING
1   AU=CHAN, ANTHONY RIVERA
18  AU=CHAN, ANTHONY S. L.
1   AU=CHAN, ANTHONY SAI-CHEUNG
s11 132  S E1-E25

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? s s11 and hepatocellular

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132  S11
294510 HEPATOCELLULAR
s12   1  S S11 AND HEPATOCELLULAR

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| Set   | Items | Description  |
|---|-------|--|
| S1  | 112   | S E4-E7  |
| S2  | 2     | S S1 AND HEPATOCELLULAR  |
| S3  | 31    | S E8-E14   |
| S4  | 8     | S S3 AND HEPATOCELLULAR  |
| S5  | 25    | S E2-E7  |
| S6  | 0     | S S5 AND HEPATOCELLULAR  |
| S7  | 2     | AU='YIP, VICTOR F.' FROM 5, 6, 24, 34, 40, 41, 45, 50, 65, 71, 73, |
| 98, 103, 136, 143, 144, 155, 156, 162, 172, 305, 369, 370, 393, 399, 434, 28, 35, |       |  |
| 91, 110, 135, 164, 185, 357, 391, 467, 8, 99, 266, 315, 358, 149, 159, 444        |       |  |
| S8  | 1     | S S7 AND HEPATOCELLULAR  |
| S9  | 5     | S E1-E3  |
| S10   | 1     | S S9 AND HEPATOCELLULAR  |
| S11   | 132   | S E1-E25   |
| S12   | 1     | S S11 AND HEPATOCELLULAR   |

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| Ref | Items | Index-term                |
|-----|-------|---------------------------|
| E1  | 1     | AU=YIP, T-T               |
| E2  | 1     | AU=YIP, T-T.              |
| E3  | 0     | AU=YIP, T?                |
| E4  | 1     | AU=YIP, TA-TUNG           |
| E5  | 1     | AU=YIP, TAI T.            |
| E6  | 35    | AU=YIP, TAI TUNG          |
| E7  | 75    | AU=YIP, TAI-TUNG          |
| E8  | 1     | AU=YIP, TAK CHUN          |
| E9  | 2     | AU=YIP, TAK-CHUN          |
| E10 | 2     | AU=YIP, TC                |
| E11 | 2     | AU=YIP, TERENCE           |
| E12 | 2     | AU=YIP, TERENCE POK SIU   |
| E13 | 1     | AU=YIP, TERESA            |
| E14 | 2     | AU=YIP, TERESA M.         |
| E15 | 1     | AU=YIP, TERRANCE          |
| E16 | 1     | AU=YIP, TERRANCE P        |
| E17 | 1     | AU=YIP, TERRANCE P.       |
| E18 | 1     | AU=YIP, TERRY SIU-HAN     |
| E19 | 2     | AU=YIP, THOMAS            |
| E20 | 1     | AU=YIP, THOMAS C.         |
| E21 | 1     | AU=YIP, THOMAS W. S.      |
| E22 | 1     | AU=YIP, THOMAS W.S.       |
| E23 | 1     | AU=YIP, THOMAS WAI-CHEONG |
| E24 | 1     | AU=YIP, TIAN SIANG        |
| E25 | 12    | AU=YIP, TICK HON          |

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? s e4-e7

1 AU=YIP, TA-TUNG  
1 AU=YIP, TAI T.  
35 AU=YIP, TAI TUNG  
75 AU=YIP, TAI-TUNG  
s13 112 S E4-E7

? s s13 and hepatocellular

112 S13  
294510 HEPATOCELLULAR  
s14 2 S S13 AND HEPATOCELLULAR

? t s14/3,k/1-2

>>>W: KWIC option is not available in file(s): 399

14/3,k/1 (Item 1 from file: 399) Links

Fulltext available through: STIC Full Text Retrieval Options

CA SEARCH(R)

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140074827 CA: 140(6)74827f JOURNAL

Comprehensive proteomic profiling identifies serum proteomic signatures for detection of hepatocellular carcinoma and its subtypes

Author: Poon, Terence C. W.; Yip, Tai-Tung; Chan, Anthony T. C.; Yip, Christine; Yip, Victor; Mok, Tony S. K.; Lee, Conrad C. Y.; Leung, Thomas W. T.; Ho, Stephen K. W.; Johnson, Philip J.

Location: Department of Clinical Oncology, the Sir Y.K. Pao Centre for Cancer, The Chinese University of Hong Kong, Hong Kong, Peop. Rep. China,

Journal: Clin. Chem. (Washington, DC, U. S.)

Date: 2003

Volume: 49 Number: 5 Pages: 752-760

CODEN: CLCHAU

ISSN: 0009-9147

Language: English

Publisher: American Association for Clinical Chemistry

14/3,k/2 (Item 2 from file: 399) Links

CA SEARCH(R)

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139321684 CA: 139(21)321684k PATENT

Serum biomarkers in hepatocellular carcinoma

Inventor (Author): Yip, Tai-Tung; Poon, Terence C. W.; Johnson, Philip; Yip, Victor F.; Yip, Christine L.; Chan, Anthony T. C.

Location: USA

Assignee: CIPHERGEN Biosystems, Inc.; The Chinese University of Hong Kong

Patent: PCT International ; WO 200386445 A1 Date: 20031023

Application: WO 2003US10489 (20030407) \*US PV370239 (20020408)

Pages: 45 pp.

CODEN: PIXXD2

Language: English

Patent Classifications:

Class: A61K-038/00A; C07K-002/00B; C07K-004/00B; C07K-005/00B; C07K-007/00B; C07K-014/00B; C07K-016/00B; C07K-017/00B; G01N-033/48B; G01N-033/00B; G01N-024/00B; G01N-033/53B

Designated Countries: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NI; NO; NZ; OM; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

Designated Regional: GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG;

Untitled

CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI;  
SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

HCCcarcinoma.txt

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? s hepatocellular adj carcinoma or HCC
      0 HEPATOCELLULAR ADJ CARCINOMA
      78025 HCC
S1      78025 S HEPATOCELLULAR ADJ CARCINOMA OR HCC

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      35445 DALTON
      44384 KILODALTON
      752464 KDA
      509426 DA
S2      696 S S1 AND (DALTON OR KILODALTON OR KDA OR DA)

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      0 SERUM ADJ BIOMARKER
      1314164 MARKER
      137205 BIOMARKER
S3      109 S S2 AND (SERUM ADJ MARKER OR SERUM ADJ BIOMARKER OR MARKER OR
BIOMARKER)
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Duplicate detection is not supported for File 391.
Records from unsupported files will be retained in the RD set.
S4      56 RD (UNIQUE ITEMS)
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>>>w: KWIC option is not available in file(s): 399
4/3,k/1 (Item 1 from file: 5) Links
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0019493671 Biosis No.: 200700153412
Proteomics-based identification of biomarkers for predicting sensitivity to a
PI3-kinase inhibitor in cancer
```

Author: Akashi Tetsuyuki; Nishimura Yumiko; Wakatabe Rumi; Shiwa Mieko; Yamori Takao  
(Reprint)  
Author Address: Japanese Fdn Canc Res, Div Mol Pharmacol, Canc Chemotherapy Ctr,  
Koto Ku, 3-10-6 Ariake, Tokyo 1358550, Japan\*\*Japan  
Author E-mail Address: yamori@jfcrr.or.jp  
Journal: Biochemical and Biophysical Research Communications 352 ( 2 ): p.514-521  
JAN 12 2007 2007  
ISSN: 0006-291X  
Document Type: Article  
Record Type: Abstract  
Language: English

Abstract: ...integrated approach allowed us to identify peaks from two proteins, 11.6 and 11.8 kDa, that showed significant correlations with the sensitivity to a P13K inhibitor, LY294002. we found that the 11.8 kDa protein was a phosphorylated form of the 11.6 kDa protein. while the 11.8 kDa protein showed a positive correlation with the sensitivity to LY294002, the 11.6 kDa protein showed a negative correlation with that of the LY294002. The 11.6 kDa protein was purified chromatographically, and was identified by SELDI-TOF MS as the ribosomal P2...  
...for determining the sensitivity to LY294002, and that the ribosomal P2 could be a potential biomarker for predicting chemo sensitivity. (c) 2006 Elsevier Inc. All



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DESCRIPTORS:

Organisms: ...HCC-2998 cell line (Hominidae

Chemicals & Biochemicals: ...phosphorylation, biomarker

4/3,K/2 (Item 2 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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19132806 Biosis No.: 200600478201

Enrichment of low molecular weight fraction of serum for MS analysis of peptides associated with hepatocellular carcinoma

Author: Orvisky Eduard; Drake Steven K; Martin Brian M; Abdel-Hamid Mohamed; Resson Habtom W; Varghese Rency S; An Yanming; Saha Daniel; Hortin Glen L; Loffredo Christopher A; Goldman Radoslav (Reprint)

Author Address: Georgetown Univ, Lombardi Comprehensive Canc Ctr, Dept Oncol, LCCC Room S183, 3970 Reservoir Rd NW, Washington, DC 20057 USA\*\*USA

Author E-mail Address: rg26@georgetown.edu

Journal: Proteomics 6 ( 9 ): p 2895-2902 MAY 2006 2006

ISSN: 1615-9853

Document Type: Article

Record Type: Abstract

Language: English

Abstract: A challenging aspect of biomarker discovery in serum is the interference of abundant proteins with identification of disease-related proteins... ..by denaturing ultrafiltration, which enables an efficient profiling and identification of peptides up to 5 kDa. We consistently detect several hundred peptide-peaks in MALDI-TOF and SELDI-TOF spectra of... ..demonstrate utility of the methods, we compared 20 enriched sera of patients with hepatocellular carcinoma (HCC) and 20 age-matched controls using MALDI-TOF. The comparison of 332 peaks at  $p < 0.001$  identified 45 differentially abundant peaks that classified HCC with 90% accuracy in this small pilot study. Direct TOF/TOF sequencing of the most... ..serum facilitates an efficient discovery of peptides that could serve as biomarkers for detection of HCC as well as other diseases.

4/3,K/3 (Item 3 from file: 5) Links

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19132803 Biosis No.: 200600478198

Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach

Author: Lee I-Neng; Chen Chien-Hung; Sheu Jin-Chuan; Lee Hsuan-Shu; Huang Guan-Tam; Chen Ding-Shinn; Yu Chen-Yin; Wen Chu-Ling; Lu Fung-Jou; Chow Lu-Ping (Reprint)

Author Address: Natl Taiwan Univ, Coll Med, Grad Inst Biochem and Mol Biol, 1, Sec 1, 1 Jen Ai Rd, Taipei 10018, Taiwan\*\*Taiwan

Author E-mail Address: lupin@ha.mc.ntu.edu.tw

Journal: Proteomics 6 ( 9 ): p 2865-2873 MAY 2006 2006

ISSN: 1615-9853

Document Type: Article

Record Type: Abstract

Language: English

Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach

Abstract: Although the significant risk factors for hepatocellular carcinoma (HCC) are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death

HCCcarcinoma.txt

worldwide. Thus, to identify any useful HCC-related biomarkers is still a need. We performed SELDI-TOF MS to identify differentially expressed proteins in HCC serum using weak cation exchange protein chips. Protein characterization was performed by 2-DE separation and nano flow LC-MS/MS. A total of 55 sera were collected from HCC patients and compared with those from 48 patients with chronic hepatitis and 9 healthy individuals. A candidate marker of about 8900 Da was detected as differentially expressed in patients with chronic hepatitis C and hepatitis C virus (HCV)-related HCC. We identified this differentially expressed protein as complement C3a. The expression of C3a in HCC sera was further validated by PS20 chip immunoassay and western blotting. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC. The combination of SELDI-TOF MS and 2-DE provides a solution to identify disease...

4/3,K/4 (Item 4 from file: 5) Links

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19083278 Biosis No.: 200600428673

Increased expression and phosphorylation of liver glutamine synthetase in well-differentiated hepatocellular carcinoma tissues from patients infected with hepatitis C virus

Author: Kuramitsu Yasuhiro; Harada Toshio; Takashima Motonari; Yokoyama Yuuichirou; Hidaka Isao; Iizuka Norio; Toda Tosifusa; Fujimoto Masanori; Zhang Xiulian; Sakaida Isao; Okita Kiwamu; Oka Masaaki; Nakamura Kazuyuki (Reprint)

Author Address: Yamaguchi Univ, Dept Biochem and Biomol Recognit, Sch Med, Minami Kogushi 1-1-1, Ube, Yamaguchi 7558505, Japan\*\*Japan

Author E-mail Address: nakamura@yamaguchi-u.ac.jp

Journal: Electrophoresis 27 ( 8, Sp. Iss. SI ): p 1651-1658 APR 2006 2006

ISSN: 0173-0835

Document Type: Article

Record Type: Abstract

Language: English

Abstract: Hepatocellular carcinoma (HCC) is one of the most common fatal cancers, and chronic infection with hepatitis C virus... ..be one of the main causes in Japan. To identify diagnostic or therapeutic biomarkers for HCC associated with HCV (HCV-HCC), we tried to elucidate the factors related to the products from cancerous tissues of HCV-infected patients. From proteomic differential display analysis of liver tissue samples from HCV-HCC cancerous tissues and corresponding non-cancerous tissues from patients, three protein spots of the same molecular mass (42 kDa), whose expression increased in well-differentiated cancerous tissues, were detected. Although their pI were different... ..The tryptic peptides of the most acidic GS isoform lost the signal of 899.5 Da, corresponding a peptide of SASIRIPR, and gained a signal of 1059.5 Da, which was submitted to PSD analysis. PSD analysis showed the neutral loss by elimination of two phosphate groups, supposed to be on serine residues of the 899.5-Da peptide, from serine 320 to arginine 327 in GS. PMF followed by PSD analysis is...

DESCRIPTORS:

Chemicals & Biochemicals: ...expression, phosphorylation, biomarker; ...  
...expression, phosphorylation, biomarker

4/3,K/5 (Item 5 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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18536599 Biosis No.: 200510231099

Hepatitis B virus X protein: Structure-function relationships and role in viral pathogenesis

Book Title: Handbook of Experimental Pharmacology

Page 3

HCCcarcinoma.txt

Author: Kumar V (Reprint); Sarkar D P  
Book Author/editor: Gossen M (Editor); Kaufmann J (Editor); Triezenberg SJ (Editor)  
Author Address: Int Ctr Genet Engn and Biotechnol, Virol Grp, Aruna Asaf Ali Marg  
POB 10504, New Delhi 110067, India\*\*India  
Author E-mail Address: vijay@icgeb.res.in  
Series Title: HANDBOOK OF EXPERIMENTAL PHARMACOLOGY 166 p 377-407 2004  
Book Publisher: SPRINGER-VERLAG BERLIN, HEIDELBERGER PLATZ 3, D-14197 BERLIN,  
GERMANY  
ISSN: 0073-0033\_(print) ISBN: 3-540-21095-4 (H)  
Document Type: Book Chapter  
Record Type: Abstract  
Language: English

Abstract: The hepatitis B virus (HBV) genome codes for a 16.5-kDa protein termed pX or HBx which is a prevalent marker in the liver of patients with hepatitis B-associated hepatocellular carcinoma (HCC). Although the specific function of HBx in natural infection remains elusive, it is considered to play an important role in the etiology of HBV-induced HCC. It is a multifunctional regulatory protein that is best characterized as promiscuous transactivator. It can...

4/3,K/6 (Item 6 from file: 5) Links

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18187035 Biosis No.: 200500092948

Identification of a new marker of hepatocellular carcinoma by serum protein profiling of patients with chronic liver diseases

Author: Paradis Valerie (Reprint); Degos Francoise; Dargere Delphine; Pham Nanou; Belghiti Jacques; Degott Claude; Janeau Jean-Louis; Bezeaud Annie; Delforge Dominique; Cubizolles Myriam; Laurendeau Ingrid; Bedossa Pierre  
Author Address: Serv Anat Pathol, Hop Beaujon, 100 Blvd Gen Leclerc, F-92100, Boulogne, France\*\*France  
Author E-mail Address: vparadis@teaser.fr  
Journal: Hepatology 41 ( 1 ): p 40-47 January 2005 2005  
Medium: print  
ISSN: 0270-9139 \_(ISSN print)  
Document Type: Article  
Record Type: Abstract  
Language: English  
Identification of a new marker of hepatocellular carcinoma by serum protein profiling of patients with chronic liver diseases

Abstract: ...any biological material studied. We used this approach to identify new biomarkers of hepatocellular carcinoma (HCC) in the sera of patients with cirrhosis. Sera from 82 patients with cirrhosis, either without (n = 38) or with (n = 44) HCC, were analyzed by SELDI-TOF MS, and the results of the two groups were compared. The most efficient protein peaks leading to discrimination of patients with HCC were selected (receiver operative characteristic curves). The highest-scoring peak combination was established in a... further. The intensity of 30 protein peaks significantly differed between cirrhotic patients with and without HCC. An algorithm including the six highest-scoring peaks allowed correct classification (presence or absence of HCC) of 92.5% of patients in the test sample set and 90% in the validation sample set. The highest discriminating peak (8,900 Da) was purified further and was characterized as the C-terminal part of the V10 fragment of vitronectin. An in vitro study suggested that the increase of the 8,900-Da fragment in the serum of patients with HCC may proceed from the cleavage of native vitronectin with metalloproteases, a family of enzymes whose activity is enhanced in HCC. In conclusion, global protein profiling is an efficient approach that enabled us to identify a catalytic fragment of vitronectin as a new serum marker of HCC in patients with chronic liver diseases.

4/3,K/7 (Item 7 from file: 5) Links

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17782856 Biosis No.: 200400149517

Proteomic profiling of heat shock protein 70 family members as biomarkers for hepatitis C virus-related hepatocellular carcinoma.

Author: Takashima Motonari; Kuramitsu Yasuhiro; Yokoyama Yuuichiro; Iizuka Norio; Toda Toshifusa; Sakaida Isao; Okita Kiwamu; Oka Masaaki; Nakamura Kazuyuki (Reprint)

Author Address: Department of Biochemistry and Biomolecular Recognition, Yamaguchi University School of Medicine, 1-1-1 Minami-Kogushi, Ube, Yamaguchi, 755-8505, Japan\*\*Japan

Author E-mail Address: nakamura@yamaguchi-u.ac.jp

Journal: Proteomics 3 ( 12 ): p 2487-2493 December 2003 2003

Medium: print

ISSN: 1615-9853 \_(ISSN print)

Document Type: Article

Record Type: Abstract

Language: English

Abstract: To identify proteins linked to the pathogenesis of hepatocellular carcinoma (HCC) associated with hepatitis C virus (HCV), we profiled protein expression levels in samples of HCC. To identify essential proteins, ten samples of HCV-related HCC were analyzed by two-dimensional gel electrophoresis and matrix-assisted laser desorption/ionization-time of... ..liver tissues. We focused on four members of the heat shock protein 70 family: 78 kDa glucose-regulated protein (GRP78), heat shock cognate 71 kDa protein (HSC70), 75 kDa glucose-regulated protein (GRP75), and heat shock 70 kDa protein 1 (HSP70.1). These results were confirmed by immunoblot analysis. In an additional 11... ..There has been no report describing overexpression of these four proteins simultaneously in HBV-related HCC as well as nonviral HCC. Our results suggest that these four proteins play important roles in the pathogenesis of HCV-related HCC and could be molecular targets for diagnosis and treatment of this disease.

DESCRIPTORS:

Chemicals & Biochemicals: ...biomarker; ... ..biomarker; ... ..cancer biomarker, proteomic profiling

4/3,K/8 (Item 8 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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17764972 Biosis No.: 200400132326

Identification of a new marker of hepatocellular carcinoma ( HCC) by serum protein profiling of cirrhotic patients using SELDI-TOF proteinchip.

Author: Paradis Valerie (Reprint); Degos Francoise; Dargere Delphine; Pham Nanou; Belghiti Jacques; Degott Claude; Janeau Jean-Louis; Delforge Dominique; Cubizole Myriame; Bedossa Pierre

Author Address: CNRS, Hopital Beaujon, Clichy, France\*\*France

Journal: Hepatology 38 ( 4 Suppl. 1 ): p 752A October 2003 2003

Medium: print

Conference/Meeting: 54th Annual Meeting of the American Association for the Study of Liver Diseases Boston, MA, USA October 24-28, 2003; 20031024

Sponsor: American Association for the Study of Liver Diseases

ISSN: 0270-9139 \_(ISSN print)

Document Type: Meeting; Meeting Abstract

Record Type: Abstract

Language: English

Identification of a new marker of hepatocellular carcinoma ( HCC) by serum protein

profiling of cirrhotic patients using SELDI-TOF proteinchip.

Abstract: ...any biological material studied. We used this approach to identify new biomarkers of hepatocellular carcinomas (HCC) in serum of cirrhotic patients. Material and methods: Serum protein profiles of 83 cirrhotic patients without (n=43) or with HCC (n=40) were analysed by the SELDI-TOF technology and proteomic profiles of the two... were compared. The most efficient protein peaks allowing the discrimination of patients with or without HCC were selected. Diagnostic value of each peak isolated, or in combination, was assessed (ROC curves... An algorithm including the 5 most performing peaks allowed correct classification (presence or absence of HCC) of 93% of cases. The most performing peak (8900 Da) was further purified by sequential enrichment through affinity column, recovery of the band on a... profiling is a powerful approach that allowed the identification and characterisation of a new serum marker of HCC in patients with cirrhosis.

4/3,K/9 (Item 9 from file: 5) Links

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17660992 Biosis No.: 200400031749

SELDI-TOF-MS PROFILING OF SERUM FOR DETECTION OF HEPATOCELLULAR CARCINOMA PROGRESSION IN HEPATITIS B AND HEPATITIS C INFECTED PATIENTS.

Author: Drake Richard R (Reprint); Steel Laura F; Adam Bao-Ling; Marrero Jorge; Semmes O J; Hann Hie-won; Block Timothy; Johnson David A  
Author Address: Norfolk, VA, USA\*\*USA

Journal: Digestive Disease Week Abstracts and Itinerary Planner 2003 p Abstract No. 755 2003 2003

Medium: e-file

Conference/Meeting: Digestive Disease 2003 FL, Orlando, USA May 17-22, 2003; 20030517

Sponsor: American Association for the Study of Liver Diseases

American Gastroenterological Association

American Society for Gastrointestinal Endoscopy

Society for Surgery of the Alimentary Tract

Document Type: Meeting; Meeting Abstract

Record Type: Abstract

Language: English

Abstract: ...HCV) and who are at high risk for the development of virus-associated hepatocellular carcinoma (HCC). METHODS: The SELDI-TOF-MS (Surface Enhanced Laser Desorption/Ionization Time of Flight Mass Spectrometry... of biological mixtures. In one set of experiments, serum samples from patients with HCV-related HCC (n = 8), patients with HCV cirrhosis (n = 8), patients with chronic non-cirrhotic HCV (n... diagnosed with HBV-associated cirrhosis, plus serum from these same 10 patients after progression to HCC were analyzed. Specimens were applied in duplicate to a Bioprocessor containing IMAC3-copper Proteinchip arrays... automated using the Biomek 2000 robot. Clustering and classification analyses were performed using the Ciphergen Biomarker Wizard and Biomarker Patterns software packages, respectively. The different classification trees were generated utilizing multiple protein peaks in the mass range of 2-10 kDa. RESULTS: The serum protein profiles of patients with HCV-associated HCC could be distinguished from healthy controls with a sensitivity and specificity of 81%. Profiles of... 87%/94% in cirrhotic patients. Profiling comparisons of non-cirrhotic HCV patients with the HCV/HCC patients was effective (81%/75%), and non-cirrhotic HCV sera could be distinguished from cirrhotic... plus cirrhosis were compared to their matched samples taken at the time of diagnosis of HCC, differences in serum protein profiles were detected with a sensitivity of 94% and specificity of... system as a surveillance tool to follow progression of viral hepatitis, cirrhosis and development of HCC. Supported by the NCI Early Detection Research Network..

4/3,K/10 (Item 10 from file: 5) Links

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16847785 Biosis No.: 200200441296

Cloning and characterization of a novel 90 kDa 'companion' auto-antigen of p62 overexpressed in cancer

Author: Hoo Linda Soo; Zhang Jianying Y; Chan Edward K L (Reprint)

Author Address: Department of Molecular and Experimental Medicine, Scripps Research Institute, 10550 North Torrey Pines Road, La Jolla, CA, 92037, USA\*\*USA

Journal: Oncogene 21 ( 32 ): p 5006-5015 25 July, 2002 2002

Medium: print

ISSN: 0950-9232

Document Type: Article

Record Type: Abstract

Language: English

Cloning and characterization of a novel 90 kDa 'companion' auto-antigen of p62 overexpressed in cancer

Abstract: ...II mRNA. p62 was initially shown to be recognized by auto-antibodies in hepatocellular carcinoma (HCC) but now anti-p62 has been described in diverse malignancies. p62 is uniformly expressed in fetal liver and prominently in 33% of HCC nodules, but not detectable in adult liver or normal tissue adjacent to HCC nodules. In this study, a 90 kDa protein (p90), auto-antibodies to which were found associated with anti-p62 responses in the same HCC patient group, was identified by cDNA expression cloning. Indirect immunofluorescence showed that, like p62, p90... anti-p62, anti-Koc, and anti-CENP-F, auto-antibodies to p90 represent a new marker for tumors such as HCC and gastric cancer. Our data support the working hypothesis that auto-antibody production in cancer ...

4/3,K/11 (Item 11 from file: 5) Links

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Biosis Previews(R)

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16847767 Biosis No.: 200200441278

Molecular cloning and characterization of a novel gene which is highly expressed in hepatocellular carcinoma

Author: Zeng Jin-Zhang; Wang Hong-Yang (Reprint); Chen Zheng-Jun; Ullrich Axel; Wu Meng-Chao

Author Address: International Cooperation Laboratory on Signal Transduction, Eastern Hepatobiliary Surgical Institute, Secondary Military Medical University, 225 Changhai Road, Shanghai, 200438, China\*\*China

Journal: Oncogene 21 ( 32 ): p 4932-4943 25 July, 2002 2002

Medium: print

ISSN: 0950-9232

Document Type: Article

Record Type: Abstract

Language: English

Abstract: ...gain new insight into the molecular mechanism underlying the pathogenesis of human primary hepatocellular carcinoma (HCC), we searched for HCC-specific molecules through screening genes that are differentially expressed between cancerous and noncancerous counterparts of liver and identified a novel HCC-associated gene, HCCA1 encoding a approx80 kDa cytoplasmic protein that contains several proline-rich motifs likely for SH3-binding. HCCA1 transcript, albeit present in some adult tissues, is up-regulated selectively in HCC but not in other tumor cells. High expression of HCCA1 occurs as a late event... the degree of tumor progression. When treated with antisense oligonucleotides to HCCA1, HCCA1 expression in HCC cells (HuH-7) was effectively suppressed and cell growth was down-regulated in a time... data strongly suggest that HCCA1 is a positive effector in cell proliferation and contributes to HCC carcinogenesis and progression. We believe that

HCCcarcinoma.txt

this protein will serve as a novel useful marker for HCC and is a potential target for pharmaceutical intervention of this malignant disease.

4/3,K/12 (Item 12 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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15335731 Biosis No.: 200000054044

Serum 90K/MAC-2BP glycoprotein levels in hepatocellular carcinoma and cirrhosis

Author: Correale M (Reprint); Giannuzzi V; Iacovazzi P A; Valenza M A; Lanzillotta S; Abbate I; Quaranta M; Caruso M L; Elba S; Manghisi O G

Author Address: IRCCS "S.De Bellis", Via Andrea da Bari 84, 70121, Bari, Italy\*\*Italy

Journal: Anticancer Research 19 ( 4C ): p 3469-3472 July-Aug., 1999 1999

Medium: print

ISSN: 0250-7005

Document Type: Article

Record Type: Abstract

Language: English

Abstract: 90K/MAC-2BP glycoprotein is a serum tumour marker, member of the scavenger receptor cysteine rich (SRCR) protein superfamily, involved in different immunological mechanisms... ..monoclonal antibody in 11 chronic active hepatitis (CAH), 48 liver cirrhosis and 36 hepatocellular carcinoma (HCC). In comparison, the same samples were also tested for AFP. According to a cut-off... ..specificity in 50 controls, we observed increasing positivities from CAH to cirrhosis and then to HCC (27%, 50% and 78%, respectively). In cirrhotic patients 90K levels were associated with the presence... ..hepatic patients. However, further investigations are needed before proposing 90K as a clinical useful tumour marker in the progression from cirrhosis to HCC.

DESCRIPTORS:

Chemicals & Biochemicals: 90-kilodalton-MAC-2BP glycoprotein... ..serum level, tumor progression marker

4/3,K/13 (Item 13 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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11842279 Biosis No.: 199396006695

A new tumor-associated antigen defined by a monoclonal antibody directed to gastric adenocarcinoma

Author: Watanabe Ryoji; Johzaki Hiroshi; Iwasaki Hiroshi (Reprint); Kikuchi Masahiro; Ikeda Seiyo

Author Address: Dep. Pathology, Fukuoka Univ. Sch. Med., 7-45-1 Nanakuma, Jonan-ku, Fukuoka 814-01, Japan\*\*Japan

Journal: Cancer (Philadelphia) 71 ( 8 ): p 2439-2447 1993

ISSN: 0008-543X

Document Type: Article

Record Type: Abstract

Language: English

Abstract: ...In addition, the MoAb recognized cholangiocarcinomas (CC), but it did not react with hepatocellular carcinomas (HCC). Furthermore, in the combined type tumor consisting of a mixture of HCC and CC, the MoAb react only with CC element, but not with pseudoglandular structures in the HCC areas. These results indicate that FU-MK-1 is a useful antigenic marker for distinguishing HCC from CC in the liver. Furthermore, because this MoAb retains its reactivity with formalin-fixed ... ..molecular weight of the FU-MK-1 antigen was estimated to be ca. 41,000 dalton by the western blot analysis. Periodic acid and trypsin treatment on the antigen

suggested that...

4/3,K/14 (Item 1 from file: 34) Links

Fulltext available through: STIC Full Text Retrieval Options

Scisearch(R) Cited Ref Sci

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15942052 Genuine Article#: 119TJ No. References: 39

New multi protein patterns differentiate liver fibrosis stages and hepatocellular carcinoma in chronic hepatitis C serum samples

Author: Gobel T; Vorderwulbecke S; Hauck K; Fey H; Haussinger D; Erhardt A (REPRINT)

Corporate Source: Univ Dusseldorf,Klin Gastroenterol Hepatol & Infektiol,Moorenstr 5/D-40225 Dusseldorf//Germany/ (REPRINT); Univ Dusseldorf,Klin Gastroenterol Hepatol & Infektiol,D-40225 Dusseldorf//Germany/; CIPHERGEN Biosyst,D-16761 Hennigsdorf//Germany/

Journal: WORLD JOURNAL OF GASTROENTEROLOGY , 2006 , V 12 , N47 ( DEC 21 ) , P 7604-7612

ISSN: 1007-9327 Publication date: 20061221

Publisher: W J G PRESS , PO BOX 2345, BEIJING 100023, PEOPLES R CHINA

Language: English Document Type: ARTICLE ( ABSTRACT AVAILABLE )

Abstract: ...for detection and differentiation of liver fibrosis F1-F2), liver cirrhosis (F4) and hepatocellular carcinoma (HCC) in patients with chronic hepatitis C virus (HCV).

METHODS: Serum samples of 39 patients with F1/F2 fibrosis, 44 patients with F4 fibrosis, 34 patients with HCC were applied to CM10 arrays and analyzed using the SELDI-TOF ProteinChip System (PBS-II... ..after anion-exchange fractionation. All patients had chronic hepatitis C and histologically confirmed fibrosis stage/HCC. Data were analyzed for protein patterns by multivariate statistical techniques and artificial neural networks.

RESULTS: A 4 peptide/protein multimarker panel (7486, 12843, 44293 and 53598 Da) correctly identified HCCs with a sensitivity of 100% and specificity of 85% in a two... ..HCV-cirrhosis versus HCVHCC training samples (AUROC 0.943). Sensitivity and specificity for identification of HCC were 68% and 80% for random test samples. Cirrhotic patients could be discriminated against patients... ..F2 fibrosis using a 5 peptide/protein multimarker pattern (2873, 6646, 7775, 10525 and 67867 Da) with a specificity of 100% and a sensitivity of 85% in training samples (AUROC 0... ..a sensitivity and specificity of 80% and 67% for random test samples. Combination of the biomarker classifiers with APRI score and alfa-fetoprotein (AFP) improved the diagnostic performance. The 6646 Da marker protein for liver fibrosis was identified as apolipoprotein C-I.

CONCLUSION: SELDI-TOF-MS technology...

4/3,K/15 (Item 2 from file: 34) Links

Fulltext available through: STIC Full Text Retrieval Options

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15563913 Genuine Article#: 087AK No. References: 27

Overexpression of cyclase-associated protein 2 in multistage hepatocarcinogenesis

Author: Shibata R; Mori T; Du WL; Chuma M; Gotoh M; Shimazu M; Ueda M; Hirohashi S; Sakamoto M (REPRINT)

Corporate Source: Keio Univ,Sch Med, Dept Pathol, Shinjuku Ku,35 Shinanomachi/Tokyo 1608582//Japan/ (REPRINT); Keio Univ,Sch Med, Dept Pathol, Shinjuku Ku,Tokyo 1608582//Japan/; Keio Univ,Sch Med, Div Diagnost Pathol,Tokyo 1608582//Japan/; Keio Univ,Sch Med, Dept Surg,Tokyo 1608582//Japan/; Natl Canc Ctr,Res Inst, Div Pathol,Tokyo 104//Japan/ ( msakamot@sc.itc.keio.ac.jp )

Journal: CLINICAL CANCER RESEARCH , 2006 , V 12 , N18 ( SEP 15 ) , P 5363-5368



ISSN: 1078-0432 Publication date: 20060915

Publisher: AMER ASSOC CANCER RESEARCH , 615 CHESTNUT ST, 17TH FLOOR, PHILADELPHIA, PA 19106-4404 USA

Language: English Document Type: ARTICLE ( ABSTRACT AVAILABLE )

Abstract: Purpose: Hepatocellular carcinoma (HCC) associated with chronic liver disease is known to show an obvious multistage process of tumor progression. We previously identified heat shock protein 70 as a molecular marker of early HCC during investigation of expression profiling in multistage hepatocarcinogenesis. In this report, we examined cyclase-associated protein 2 (CAP2), which is also listed as an up-regulated gene in early HCC.

Experimental Design: We measured the level of CAP2 mRNA by real-time quantitative PCR. We... antibody against CAP2 and we confirmed the expression of CAP2 by immunoblotting and immunohistochemistry in HCC cell lines and HCC tissues.

Results: According to real-time quantitative PCR, the level of CAP2 mRNA was up-regulated in early HCC when compared with noncancerous liver tissue, and it was further up-regulated in progressed HCC. We raised a polyclonal antibody against CAP2, which showed a single 53-kDa band of strong intensity in the human HCC cell lines and HCC tissues but only a weak band in the noncancerous liver tissues in Western blot analysis. Immunohistochemical examination of CAP2 revealed its significant overexpression in early HCC when compared with noncancerous and precancerous lesions and in progressed HCC when compared with early HCC.

Conclusion: Our findings show that CAP2 is up-regulated in HCC when compared with noncancerous and precancerous lesions. This is the first report that proves that...

4/3,K/16 (Item 3 from file: 34) Links

Fulltext available through: STIC Full Text Retrieval Options  
SciSearch(R) Cited Ref Sci

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14828876 Genuine Article#: 010JF No. References: 25

Changes in the serum proteome associated with the development of hepatocellular carcinoma in hepatitis C-related cirrhosis

Author: ward DG; Cheng Y; N'kontchou G; Thar TT; Barget N; Wei W; Billingham LJ; Martin A; Beaugrand M; Johnson PJ (REPRINT)

Corporate Source: Univ Birmingham, Sch Med, Canc Res UK Inst Canc Studies, Birmingham B15 2TT/W Midlands/England/ (REPRINT); Univ Birmingham, Sch Med, Canc Res UK Inst Canc Studies, Birmingham B15 2TT/W Midlands/England/; Univ Paris 13, UFR SMBH, UPRES EA 3409, Hepatogastroenterol & Pathol Dept, Assistance Publ Hosp, Bondy//France/ (p.johnson@bham.ac.uk)

Journal: BRITISH JOURNAL OF CANCER , 2006 , V 94 , N2 ( JAN 30 ) , P 287-292

ISSN: 0007-0920 Publication date: 20060130

Publisher: NATURE PUBLISHING GROUP , MACMILLAN BUILDING, 4 CRINAN ST, LONDON N1 9XW, ENGLAND

Language: English Document Type: ARTICLE ( ABSTRACT AVAILABLE )

Abstract: Early diagnosis of hepatocellular carcinoma (HCC) is the key to the delivery of effective therapies. The conventional serological diagnostic test, estimation... to complement ultrasound scanning, the major modality for surveillance of groups at high risk of HCC. We have analysed the serum proteome of 182 patients with hepatitis C-induced liver cirrhosis ( 77 with HCC) by surface-enhanced laser desorption/ ionisation time-of-flight mass spectrometry (SELDI). The patients were split into a training set ( 84 non-HCC, 60 HCC) and a 'blind' test set ( 21 non-HCC, 17 HCC). Neural networks developed on the training set were able to classify the blind test set... and 86% specificity ( 95% CI 65 - 95%). Two of the SELDI peaks (23/23.5 kDa) were elevated by an average of 50% in the serum of HCC patients (P < 0.001) and were identified as kappa and lambda immunoglobulin light chains. This... identification of several individual proteins, which, in combination, may offer a novel way to diagnose HCC.

Identifiers-- ...ARTIFICIAL NEURAL-NETWORKS; CANCER; DISCOVERY; IDENTIFICATION;

BIOMARKERS; MARKER; STAGE

4/3,K/17 (Item 4 from file: 34) Links  
 Fulltext available through: STIC Full Text Retrieval Options  
 SciSearch(R) Cited Ref Sci  
 (c) 2008 The Thomson Corp. All rights reserved.  
 12700424 Genuine Article#: 811HV No. References: 33  
 Proteomic analysis of cholangiocarcinoma cell line

Author: Srisomsap C; Sawangareetrakul P; Subhasitanont P; Panichakul T;  
 Keeratichamroen S; Lirdprapamongkol K; Chokchaichamnankit D; Sirisinha S; Svasti J  
 (REPRINT)  
 Corporate Source: Chulabhorn Res Inst,Biochem Lab,Vibhavadee Rangsit Rd/Bangkok  
 10210//Thailand/ (REPRINT); Chulabhorn Res Inst,Biochem Lab,Bangkok  
 10210//Thailand/; Chulabhorn Res Inst,Immunol Lab,Bangkok 10210//Thailand/; Mahidol  
 Univ,Dept Microbiol,Bangkok 10700//Thailand/; Mahidol Univ,Dept Biochem,Bangkok  
 10700//Thailand/  
 Journal: PROTEOMICS , 2004 , V 4 , N4 ( APR ) , P 1135-1144  
 ISSN: 1615-9853 Publication date: 20040400  
 Publisher: WILEY-V C H VERLAG GMBH , PO BOX 10 11 61, D-69451 WEINHEIM, GERMANY  
 Language: English Document Type: ARTICLE ( ABSTRACT AVAILABLE )  
 Abstract: ...with a higher incidence in tropical countries, such as Thailand.  
 Distinguishing CCA from hepatocellular carcinoma (HCC) of the liver often requires  
 the use of histochemistry, so molecular markers for diagnosis and... cell line  
 (HuCCA-1) has been compared to human hepatocellular carcinoma cell lines (HepG2 and  
 HCC-S102) and a human breast epithelial cancer cell line (MCF-7). Our results show  
 that... MS (ESI-MS/MS). Cytokeratins CK8 and CK18 were overexpressed in both  
 HuCCA-1 and HCC, while CK7 and CK19 were only expressed in HuCCA-1. Four specific  
 proteins with MW... U2 showed high expression in HuCCA-1, while U1 and U4 showed  
 high expression in HCC-S102. U2 could be separated in 2 proteins, U2/1  
 (alpha-enolase) and U2/2... HuCCA-1 by 1-DE immunodetection, and gave only one  
 spot with MW 32.9 kDa and pI 8.29 on 2-DE immunoblotting. Thus, certain proteins,  
 namely CK7, CK19, U2...

4/3,K/18 (Item 1 from file: 45) Links  
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 EMCare  
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 01951531 EMCare No: 44268169  
 Global proteomic analysis of microdissected cirrhotic nodules reveals significant  
 biomarkers associated with clonal expansion  
 Guedj N.; Dargere D.; Degos F.; Janneau J.L.; Vidaud D.; Belghiti J.; Bedossa P.;  
 Paradis V.  
 Dr. V. Paradis, Service d'Anatomie Pathologique, Hopital Beaujon, 110 bd du Gen.  
 Leclerc, 92118 Clichy Cedex France  
 AUTHOR EMAIL: vparadis@teaser.fr  
 Laboratory Investigation ( LAB. INVEST. ) ( United Kingdom ) 05 SEP 2006 , 86/9  
 (951-958)  
 CODEN: LAINA ISSN: 0023-6837 eISSN: 1530-0307  
 PUBLISHER ITEM IDENTIFIER: 3700450  
 DOCUMENT TYPE: Journal ; Article  
 LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
 NUMBER OF REFERENCES: 33  
 RECORD TYPE: Abstract  
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...tissue composed of polyclonal regenerative and monoclonal neoplastic,  
 potentially malignant nodules from which hepatocellular carcinoma ( HCC ) might  
 develop. The aim of this study was to investigate proteomic profile changes

HCCcarcinoma.txt

associated with... malignant transformation of monoclonal nodules. Seventy-one cirrhotic nodules from 10 female patients with six HCC were dissected from liver surgical specimen by laser capture microdissection. Clonal status of each nodule... (n=26) identified three differentially expressed protein peaks (10 092, 54 025 and 62 133 Da). All were upregulated in monoclonal nodules. Twelve peaks were differentially expressed between monoclonal nodules and HCC with nine proteins upregulated in cancer samples. This study confirms that proteome analysis can be...

DESCRIPTORS:

\* liver nodule; \*liver cirrhosis; \*biological marker

4/3,K/19 (Item 2 from file: 45) Links

Fulltext available through: STIC Full Text Retrieval Options

EMCare

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01161253 EMCare No: 35332910

Differential expression of beta-galactoside alpha2,6 sialyltransferase and sialoglycans in normal and cirrhotic liver and hepatocellular carcinoma

Cao Y.; Merling A.; Crocker P.R.; Keller R.; Schwartz-Albiez R.

Dr. R. Schwartz-Albiez, Division of Cellular Immunology, German Cancer Research Centre, Im Neuenheimer Feld 280, D-69120 Heidelberg Germany

AUTHOR EMAIL: r.s-albiez@dkfz.de

Laboratory Investigation ( LAB. INVEST. ) ( United States ) 01 NOV 2002 , 82/11 (1515-1524)

CODEN: LAINA ISSN: 0023-6837

DOCUMENT TYPE: Journal ; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 43

RECORD TYPE: Abstract

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...alpha2,6 sialyltransferase (ST6Gal I) and sialoglycans in normal liver, cirrhotic liver, and hepatocellular carcinoma (HCC) using a new ST6Gal I-specific mAb and recombinant fusion proteins of CD22 and sialoadhesin... in Kupffer cells, bile ducts, endothelial cells, and oval cells. Well-differentiated and moderately differentiated HCC showed Golgi and diffuse cytoplasmic staining of ST6Gal I and sialoglycans, whereas the cytoplasmic staining for ST6Gal I and sialoglycans was decreased or even absent in poorly differentiated HCC. Detection of sialoglycans by the recombinant fusion proteins in western blots of cell lysates derived from cell lines revealed two major double bands of sialoglycoproteins at 65 and 120 kDa for hepatocytes, three major bands at 54, 49, and 44 kDa for colonic epithelial cells, and one band at 60 kDa for endothelial cells. Our results describe the expression patterns of ST6Gal I and sialoglycans in...

DESCRIPTORS:

hybrid protein; sialoglycoprotein; sialoadhesin; plasma protein; unclassified drug; cell enzyme; enzyme; marker; antigen; liver cell; intrahepatic bile duct; endothelium cell; staining; cell differentiation; bile duct; human cell... journal; liver cirrhosis; protein localization; rat; controlled study; cell line; protein expression; enzyme activity; disease marker; cell lysate; colon mucosa; liver disease; immunohistology; epithelium cell; animal cell

4/3,K/20 (Item 1 from file: 73) Links

Fulltext available through: STIC Full Text Retrieval Options

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0082103458 EMBASE No: 2007548023

Using protein chip technology to screen for tissue proteomic profiles and tumor markers in hepatocellular carcinoma

Li D.; Zhang J.-Z.; Zheng Y.-H. // Ji X.-L.; Shu Q.-M.; Fan L.-N. // You H. // Li

X.-C. // Zhang J.-Z.

Department of Pathology, 306 Hospital of Chinese PLA, Beijing 100101, China // Department of Pathology, General Hospital of Armed Police Force of Chinese PLA, Beijing 100080, China // Research Center of Liver Disease, Beijing Friendship Hospital, Beijing 100053, China // Department of Sergeant, Academy of Equipment Command and Technology of Chinese PLA, Beijing 102249, China // Department of Pathology, 306 Hospital of Chinese PLA, 9 Anxiang North Road, Beijing 100101, China  
Author email: zhangjz55@sina.com; zhangjz55@sina.com  
Corresp. Author: Zhang J.-Z.  
Corresp. Author Affil: Department of Pathology, 306 Hospital of Chinese PLA, 9 Anxiang North Road, Beijing 100101, China  
Corresp. Author email: zhangjz55@sina.com

World Chinese Journal of Digestology ( World Chin. J. Dig. ) ( China ) August 1, 2007 , 15/22 (2424-2430)

CODEN: SHXZF ISSN: 10093079

Document Type: Journal ; Article Record Type: Abstract

Language: Chinese Summary language: English; Chinese

Number of References: 32

...spectrometry (SELDI-TOF-MS) technique to screen for tissue biomarkers in patients with hepatocellular carcinoma (HCC), but with different clinicopathological features. METHODS: Proteomic spectra were examined and analyzed by mass spectroscopy in 44 cases, including 26 specimens of HCC tissue that had been pathologically confirmed in patients aged 34-68 years, and 18 specimens... ..cirrhosis tissue in patients aged 38-70 years. The spectra obtained were analyzed using the biomarker wizard system, and the biomarkers were defined by searching www.ExPasy.org. RESULTS: A total... ..16 distinguished proteomic biomarkers, 7 up-regulated and 9 down-regulated, were detected from screening HCC tissue, in contrast with liver cirrhosis tissue. There were significant differences in the protein peaks of different molecular masses of 4.7, 7.2 and 9.8 kDa between HCC and liver cirrhosis tissues. Eleven distinguished proteomic biomarkers were screened when comparing cases of moderately and highly differentiated HCC tissue. All proteins were confirmed by searches of www.ExPasy.org. CONCLUSION: The SELDI-TOF-MS technique offers a unique platform for proteomic detection in HCC. It is also a non-invasive method for studying proteomic changes in the development and progression of HCC.  
Drug Descriptors:  
tumor marker

4/3,K/21 (Item 2 from file: 73) Links

Fulltext available through: STIC Full Text Retrieval Options

EMBASE

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0082012034 EMBASE No: 2007451057

Artificial neural networks and decision tree model analysis of liver cancer proteomes

Luk J.M.; Lam B.Y.; Lee N.P.Y.; Ho D.W.; Chen L.; Fan S.-T. // Sham P.C. // Chen L.; Peng J.; Leng X. // Day P.J.

Department of Surgery, Center for Cancer Research, University of Hong Kong, 21 Sassoon Road, Pokfulam, Hong Kong // Genome Research Centre, Department of Psychiatry, University of Hong Kong, Pokfulam, Hong Kong // Department of Surgery, People's Hospital, Peking University, Beijing, China // The Manchester Interdisciplinary Biocentre, University of Manchester, Manchester, United Kingdom  
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Biochemical and Biophysical Research Communications ( Biochem. Biophys. Res. Commun. ) ( United States ) September 14, 2007 , 361/1 (68-73)

CODEN: BBRCA ISSN: 0006291X eISSN: 10902104  
 Publisher Item Identifier: S0006291X07014003  
 Item Identifier (DOI): 10.1016/j.bbrc.2007.06.172  
 Document Type: Journal ; Article Record Type: Abstract  
 Language: English Summary language: English  
 Number of References: 25

Hepatocellular carcinoma (HCC) is a heterogeneous cancer and usually diagnosed at late advanced tumor stages of high lethality. The present study attempted to obtain a proteome-wide analysis of HCC in comparison with adjacent non-tumor liver tissues, in order to facilitate biomarkers' discovery and to investigate the mechanisms of HCC development. A cohort of 66 Chinese patients with HCC was included for proteomic profiling study by two-dimensional gel electrophoresis (2-DE) analysis. Artificial... employed to analyze the profiling data and to delineate significant patterns and trends for discriminating HCC from non-malignant liver tissues. Protein markers were identified by tandem MS/MS. A total... each with 230 consolidated protein expression intensities. Both the data-mining algorithms successfully distinguished the HCC phenotype from other non-malignant liver samples. The detection sensitivity and specificity of ANN were... three biological classifiers in the CART model were identified as cytochrome b5, heat shock 70 kDa protein 8 isoform 2, and cathepsin B. The 2-DE-based proteomic profiling approach combined with the ANN or CART algorithm yielded satisfactory performance on identifying HCC and revealed potential candidate cancer biomarkers. (c) 2007 Elsevier Inc. All rights reserved.

#### Drug Descriptors:

biological marker--endogenous compound--ec; cathepsin B--endogenous compound--ec; cytochrome b5--endogenous compound--ec; heat shock...

4/3,K/22 (Item 3 from file: 73) Links

Fulltext available through: STIC Full Text Retrieval Options

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0081549702 EMBASE No: 2006613339

Application of surface enhanced laser desorption ionization time-of-flight mass spectrometry technology in the diagnosis of hepatocellular carcinoma

Tian Z.-B.; Kong X.-J.; Zhang C.-P. // Liu H. // Sun G.-R. // Wang B. // Tian Z.-B.

Department of Gastroenterology, Affiliated Hospital of Qingdao University Medical College, Qingdao 266003, Shandong Province, China // Department of Endoscopy, Affiliated Hospital of Qingdao University Medical College, Qingdao 266003, Shandong Province, China // Clinical Immunologic Center, Affiliated Hospital of Qingdao University Medical College, Qingdao 266003, Shandong Province, China // Department of Microbiology, Qingdao University Medical College, Qingdao 266021, Shandong Province, China // Department of Gastroenterology, Affiliated Hospital of Medical College Qingdao University, 16 Jiangsu Road, Qingdao 266003, Shandong Province, China

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World Chinese Journal of Digestology ( world Chin. J. Dig. ) ( China ) September 1, 2006 , 14/25 (2499-2503)

CODEN: SHXZF ISSN: 10093079

Document Type: Journal ; Article Record Type: Abstract

Language: Chinese Summary language: English; Chinese

Number of References: 11

AIM: To explore tumor markers for the diagnosis of hepatocellular carcinoma (HCC)

# HCCcarcinoma.txt

through detecting the serum protein spectrum differently expressed between hepatitis B virus (HBV) carriers and HCC patients. METHODS: We detected the serum protein spectrum in 27 HCC patients, 27 HBV carriers and 25 healthy controls using surface enhanced laser desorption ionization time... ..TOF-MS) technique, and the diagnosis model was established through analyzing the detected data by biomarker patterns software (BPS) 5.0. RESULTS: The protein peaks, which could discriminate HBV carriers from HCC patients and healthy individuals, as well as healthy individuals from HCC patients, were detected. A diagnosis model based on the detected data was established with the... ..of 93%, 96%, 84%, and sensitivity of 85%, 96%, 89%, respectively. In addition, the 8141-Da protein in HCC patients had a higher expression than that in HBV carriers ( $P < 10^{-5}$ ); the expression of 3448-Da protein was higher both in HCC patients and HBV carriers than that in healthy controls ( $P < 10^{-5}$ ), but it had no significant difference between HCC patients and HBV carriers ( $P > 0.05$ ), indicating that 3448-Da protein might be a potential marker for HBV infection; 7771-Da protein was differently expressed between the three groups of patients. CONCLUSION: With a high specificity... ..quickly by SELDI-TOF-MS technique, which provides a serological way for the diagnosis of HCC. Drug Descriptors: plasma protein--endogenous compound--ec; tumor marker--endogenous compound--ec

4/3,K/23 (Item 4 from file: 73) Links

Fulltext available through: STIC Full Text Retrieval Options

EMBASE

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0081416312 EMBASE No: 2006479235

Establishment of serum protein pattern model for screening hepatocellular carcinoma by surface-enhanced laser desorption/ionization time-of-flight mass spectrometry

Liu C.-B.; Pan C.-Q.; Sun L.-F. // Liu C.-B.

Taizhou Municipal Hospital, Taizhou 318000, Zhejiang Province, China // Taizhou Municipal Hospital, 381 Zhongshan Rd., Jiaojiang Dist., Taizhou 318000, Zhejiang Province, China

Author email: liuchibo@56.com; liuchibo@56.com

Corresp. Author: Liu C.-B.

Corresp. Author Affil: Taizhou Municipal Hospital, 381 Zhongshan Rd., Jiaojiang Dist., Taizhou 318000, Zhejiang Province, China

Corresp. Author email: liuchibo@56.com

World Chinese Journal of Digestology ( World Chin. J. Dig. ) ( China ) August 1, 2006 , 14/23 (2354-2357)

CODEN: SHXZF ISSN: 10093079

Document Type: Journal ; Article Record Type: Abstract

Language: Chinese Summary language: English; Chinese

Number of References: 7

...spectrometry (SELDI-TOF-MS) on WCX2 chips. The collected data were compared and analyzed by Biomarker Wizard software. RESULTS: A group of proteomic peaks were detected. The expression of five protein molecules (4477, 8943, 5181, 8617, 13 761 Da) in patients with hepatic cellular carcinoma was significantly higher than those in the controls, and the expression of 4477- and 13 761-Da proteins were higher while the 4097-Da one was lower in HCC patients than cirrhosis ones. The specificity and sensitivity of SELDI-TOF-MS were 100% (60/60) and 90% (18/20), respectively. Four protein molecules (4477, 8943, 13 761, 4097 Da) were screened as a proteomic model. CONCLUSION: The discovered serum protein pattern model can efficiently...

4/3,K/24 (Item 5 from file: 73) Links

Fulltext available through: STIC Full Text Retrieval Options

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0075922659 EMBASE No: 1994352496

HCCcarcinoma.txt

Expression of peroxisomal enoyl-CoA hydratase/3-hydroxyacyl-CoA dehydrogenase enzyme and its mRNA in peroxisome proliferator-induced liver tumors

Rao M.S.; Ide H.; Yeldandi A.V.; Kumar S.; Reddy J.K.  
Department of Pathology, NW University Medical School, 303 East Chicago Avenue,  
Chicago, IL 60611, United States  
Corresp. Author: Rao M.S.  
Corresp. Author Affil: Department of Pathology, Northwestern Univ. Medical School,  
303 East Chicago Avenue, Chicago, IL 60611, United States

Carcinogenesis ( CARCINOGENESIS ) ( United Kingdom ) November 1, 1994 , 15/11  
(2619-2622)

CODEN: CRNGD ISSN: 01433334  
Document Type: Journal ; Article Record Type: Abstract  
Language: English Summary language: English  
Number of References: 27

...to the adjacent non-neoplastic liver. SDS-polyacrylamide gel electrophoresis of postnuclear fractions of six HCC and adjacent liver tissue showed a marked increase in an 80 kDa polypeptide. Immunoblot and Northern blot analysis showed a marked increase in PBE enzyme and PBE mRNA respectively in HCC and adjacent non-neoplastic liver tissue. In control livers (animals not treated with peroxisome proliferators...

Drug Descriptors:  
antibody; ciprofibrate; prasterone; tumor marker

4/3,K/25 (Item 1 from file: 144) Links  
Pascal  
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15962183 PASCAL No.: 03-0105753

Expression of p33 SUP I SUP N SUP G SUP 1 in hepatocellular carcinoma:  
Relationships to tumour differentiation and cyclin E kinase activity

OHGI T; MASAKI T; NAKAI S; MORISHITA A; YUKIMASA S; NAGAI M;  
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Journal: Scandinavian journal of gastroenterology  
, 2002, 37 (12  
) 1440-1448  
Language: English

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... 1 (ING1) is a new candidate for the tumour suppressor gene that encodes a 33k Da protein (p33 SUP I SUP N SUP G SUP 1). While reduction of p33 SUP...

... expression of p33 SUP I SUP N SUP G SUP 1 in human hepatocellular carcinoma (HCC) remains to be examined. We evaluated p33 SUP I SUP N SUP G SUP 1 expression in various liver diseases including HCC. Methods: Expression of p33 SUP I SUP N SUP G SUP 1 was evaluated immunohistochemically...

... the normal liver (n = 5), but also in specimens of chronic hepatitis (n = 39) and HCC (n = 86). We also analysed the relationship between p33 SUP I SUP N SUP G...

...Results: Expression of p33 SUP I SUP N SUP G SUP 1 was reduced in HCC, especially in moderately and poorly differentiated HCCs, and

those at advanced stages. Furthermore, expression of...

... G SUP 1. may contribute to the process of malignant transformation, progression and dedifferentiation of HCC via an increase of cyclin E kinase activity.

English Descriptors: Hepatocellular carcinoma; Tumoral marker; Tumor suppressor gene; Tumor progression; Mechanism of action; Increase; Enzymatic activity; Cyclin E; Kinase; Cell...

4/3,K/26 (Item 2 from file: 144) Links  
Pascal  
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Cloning and characterization of a novel 90 kDa 'companion'  
auto-antigen of p62 overexpressed in cancer

SOO HOO Linda; ZHANG Jianying Y; CHAN Edward K L  
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Analysis, Department of Molecular and Experimental Medicine, The Scripps  
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Journal: Oncogene : (Basingstoke),  
2002, 21 (32)  
5006-5015

Language: English

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Cloning and characterization of a novel 90 kDa 'companion'  
auto-antigen of p62 overexpressed in cancer

... II mRNA. p62 was initially shown to be recognized by auto-antibodies in hepatocellular carcinoma (HCC) but now anti-p62 has been described in diverse malignancies. p62 is uniformly expressed in fetal liver and prominently in 33% of HCC nodules, but not detectable in adult liver or normal tissue adjacent to HCC nodules. In this study, a 90 kDa protein (p90), auto-antibodies to which were found associated with anti-p62 responses in the same HCC patient group, was identified by cDNA expression cloning. Indirect immunofluorescence showed that, like p62, p90...

... anti-p62, anti-Koc, and anti-CENP-F, auto-antibodies to p90 represent a new marker for tumors such as HCC and gastric cancer. Our data support the working hypothesis that auto-antibody production in cancer ...

4/3,K/27 (Item 1 from file: 135) Links  
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0000553015 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
Page 17



National Taiwan University, Taiwan, scientists detail new medical studies and findings

Pharma Business Week, June 25, 2007, p.2637

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1097

... C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC). "Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University. "We performed SELDI-TOF MS to identify differentially expressed proteins in HCC serum using weak cation exchange protein chips. Protein characterization was performed by 2-DE separation and nano flow LC-MS/MS. A total of 55 sera were collected from HCC patients and compared with those from 48 patients with chronic hepatitis and 9 healthy individuals. "A candidate marker of about 8900 Da was detected as differentially expressed in patients with chronic hepatitis C and HCV related HCC. We identified this differentially expressed protein as complement C3a," the authors reported. "The expression of C3a in HCC sera was further validated by PS20 chip immunoassay and western blotting. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC," the scientists observed. They concluded, "The combination of SELDI-TOF MS and 2-DE provides...

...Lee and colleagues published their study in Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

4/3,K/28 (Item 2 from file: 135) Links  
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0000544063 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Results of recent studies reported by University of Toronto, Canada

Science Letter, June 12, 2007, p.3027

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1254

...TEXT: cancer. "Tumor recurrence remains the major cause of death after curative resection for hepatocellular carcinoma (HCC). The purpose of this study was to identify risk factors for the recurrence of HCC and to examine long-term outcomes after resection," scientists in Toronto, Canada report. "From July...

...2004, 193 consecutive patients who underwent hepatic resection as primary therapy with curative intent for HCC were included in this single-center analysis. The perioperative mortality rate was 5%. Time to...

...Despite recurrences in >50% of patients, long-term survival can be achieved after resection of HCC," wrote S.A. Shah and colleagues, University of Toronto, Department of Surgery. The researchers concluded...

... Avenue, Toronto, ON M4N 3M5, Canada. Study 3: The Mycobacterium marinum early secretory antigenic 6 kDa/culture filtrate protein 10 secretion system modulates phagosome maturation. "Virulence of Mycobacterium tuberculosis and related pathogenic mycobacteria requires the secretion of early secretory antigenic 6 kDa (ESAT-6) and culture filtrate protein 10 (CFP-10), two small proteins that lack traditional...

...were analyzed in infected macrophages by confocal and electron microscopy using the late endosome/lysosome marker LAMP-1, along with various fluid-phase markers such as rhodamine-dextran and ferritin and ...

4/3,K/29 (Item 3 from file: 135) Links

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0000527462 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Researchers' work from National Taiwan University, Taiwan, adds to body of knowledge

Life Science Weekly, May 22, 2007, p.5019

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English

RECORD TYPE: FULLTEXT

Word Count:

1074

...TEXT: 100 ms or longer 6 h postresuscitation predicts poor survival outcomes and serves as a marker of poor prognosis." Chang and colleagues published their study in Intensive Care Medicine (Postresuscitation myocardial...

... C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC). "Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University. "We performed SELDI-TOF MS to identify differentially expressed proteins in HCC serum using weak cation exchange protein chips. Protein characterization was performed by 2-DE separation and nano flow LC-MS/MS. A

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...Lee and colleagues published their study in Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

4/3,k/30 (Item 4 from file: 135) Links  
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0000504046 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Recent studies involving Keio University, Japan, highlighted

Pharma Business Week, April 23, 2007, p.2613

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1219

...TEXT: in multistage hepatocarcinogenesis," are detailed in a study published in Clinical Cancer Research. "Hepatocellular carcinoma (HCC) associated with chronic liver disease is known to show an obvious multistage process of tumor progression. We previously identified heat shock protein 70 as a molecular marker of early HCC during investigation of expression profiling in multistage hepatocarcinogenesis," scientists writing in the journal Clinical Cancer...

...associated protein 2 (CAP2), which is also listed as an up-regulated gene in early HCC. We measured the level of CAP2 mRNA by real-time quantitative PCR. We raised a...

...antibody against CAP2 and we confirmed the expression of CAP2 by immunoblotting and immunohistochemistry in HCC cell lines and HCC tissues. According to real-time quantitative PCR, the level of CAP2 mRNA was up-regulated in early HCC when compared with noncancerous liver tissue, and it was further up-regulated in progressed HCC. We raised a polyclonal antibody against CAP2, which showed a single 53-kDa band of strong intensity in the human HCC cell lines and HCC tissues but only a weak band in the noncancerous liver tissues in Western blot analysis. Immunohistochemical examination of CAP2 revealed its significant overexpression in early HCC when compared with noncancerous and precancerous lesions and in progressed HCC when compared with early HCC. Our findings show that CAP2 is

up-regulated in HCC when compared with noncancerous and precancerous lesions," wrote R. Shibata and colleagues, Keio University, National...

4/3,K/31 (Item 5 from file: 135) Links.

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0000493315 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Studies from National Taiwan University, Taiwan, highlight most recent findings

Life Science Weekly, April 10, 2007, p.4318

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English

RECORD TYPE: FULLTEXT

Word Count:

1118

...TEXT: received surgical resection," is now available. According to a study from Taipei, Taiwan, "Hepatocellular carcinoma (HCC) is one the most common malignancies in the world. As the prognosis for HCC patients is poor, the quality of life (QOL) is becoming more important on the outcome assessments." "The aim of this study was to evaluate QOL in HCC patients. A total of 161 patients with HCC were enrolled at a university hospital. Most of these patients received surgical resections. They were...

...WHOQOL-BREF, EORTC QLQ-C30, and utility measures. The WHOQOL-BREF domain scores for the HCC patients were compared to healthy normative Taiwan population, using general linear models controlling for gender...

...explore association between a better QOL and clinical/sociodemographic variables. Compared with healthy people, the HCC patients had reduced QOL in physical domains, but better environmental QOL. After controlling gender, age, education, and employment, duration of HCC more than 1 year was associated with better QOL scores. WHOQOL-BREF could be cross-validated with EORTC QLQ-C30. Survival over 1 year was associated with better QOL in HCC patients," wrote L.J. Lee and colleagues, National Taiwan University. The researchers concluded: "WHOQOL-BREF could be a valid QOL instrument for the assessments of QOL in HCC patients." Lee and colleagues published the results of their research in the Journal of Surgical...

...C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC). "Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University. "We performed SELDI-TOF MS to identify differentially expressed proteins in HCC serum using weak cation exchange protein chips. Protein characterization was performed by 2-DE separation and nano flow LC-MS/MS. A total of 55 sera were collected from HCC patients and compared with those from 48

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n Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

4/3,K/32 (Item 6 from file: 135) Links  
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0000466630 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Research by Kanazawa University, Japan, advances understanding of human health

Pharma Business Week, March 12, 2007, p.1779

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1053

Study 1: Researchers detail in "Identification of a novel autoantibody reactive with 155 and 140 kDa nuclear proteins in patients with dermatomyositis: an association with malignancy," new data in systemic sclerosis...

...polymyositis (PM). In this study, we identified a novel MSA reactive with 155 and 140 kDa nuclear proteins [anti-155/140 antibody (Ab)] and determined the clinical feature of DM patients...

...immunofluorescence staining. Seven of the 52 (13%) Japanese patients with DM immunoprecipitated 155 and 140 kDa proteins from 35S-labelled K562 leukaemia cell extract. No patients with SLE, systemic sclerosis or...

...novel MSA is associated with cancer-associated DM and may serve as a diagnostic serological marker for this specific subset."

Kaji and colleagues published their study in Rheumatology (Identification of a novel autoantibody reactive with 155 and 140 kDa nuclear proteins in patients with dermatomyositis: an association with malignancy. Rheumatology, 2007;46(1):25...

...AFP)-derived peptides recognized by cytotoxic T lymphocytes in HLA-A24+ patients with hepatocellular carcinoma (HCC).

"AFP has been proposed as a potential target for T-cell-based immunotherapy for HCC, but the number of its epitopes that have been identified is limited and the status of AFP-specific immunological responses in HCC patients has not been well-characterized.

"To address the issue," wrote E. Mizukoshi and colleagues...

HCCcarcinoma.txt

...analyzed the relationship between its frequency of occurrence and clinical features associated with patients having HCC."

They continued, "Five AFP-derived peptides containing HLA-A\*2402 binding motifs and showing high...

...Analyses of the relationships between AFP-specific CTL responses and clinical features of patients with HCC revealed that AFP epitopes were more frequently recognized by CTLs in patients with advanced HCC correlating to tumor factors or the stage of TNM classification. The analyses of CTL responses before and after HCC treatments showed that the treatments changed the frequency of AFP-specific CTLs," the authors reported...

...epitopes derived from AFP. The newly identified AFP epitopes could be a valuable component of HCC immunotherapy and for analyzing host immune responses to HCC."

Mizukoshi and colleagues published their study in International Journal of Cancer (Identification of alpha-fetoprotein...

4/3,K/33 (Item 7 from file: 135) Links  
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0000461760 (USE FORMAT 7 OR 9 FOR FULLTEXT)

New findings from National Taiwan University, Taiwan, described

Pharma Business Week, March 5, 2007, p.2661

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1149

... C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

"Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University.

"We performed SELDI-TOF MS to identify differentially expressed proteins in HCC serum using weak cation exchange protein chips. Protein characterization was performed by 2-DE separation and nano flow LC-MS/MS. A total of 55 sera were collected from HCC patients and compared with those from 48 patients with chronic hepatitis and 9 healthy individuals.

"A candidate marker of about 8900 Da was detected as differentially expressed in patients with chronic hepatitis C and HCV related HCC. We identified this differentially expressed protein as complement C3a," the authors reported.

"The expression of C3a in HCC sera was further validated by PS20 chip immunoassay and western blotting. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC," the scientists observed.

They concluded, "The combination of SELDI-TOF MS and 2-DE provides...

...Lee and colleagues published their study in Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

4/3,K/34 (Item 8 from file: 135) Links.  
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0000433458 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Scientists from National Taiwan University, Taiwan, publish new research findings

Science Letter, February 6, 2007, p.2150

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1044

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"A candidate marker of about 8900 Da was detected as differentially expressed in patients with chronic hepatitis C and HCV related HCC. We identified this differentially expressed protein as complement C3a," the authors reported.

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They concluded, "The combination of SELDI-TOF MS and 2-DE provides...

...biomarkers."

Lee and colleagues published their study in (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

4/3,K/35 (Item 9 from file: 135) Links  
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0000431300 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Studies from Heinrich-Heine University have provided new information about hepatocellular cancer

Biotech Business Week, February 5, 2007, p.104

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
491

...TEXT: for detection and differentiation of liver fibrosis (F1-F2), liver cirrhosis (F4) and hepatocellular carcinoma (HCC) in patients with chronic hepatitis C virus (HCV). Serum samples of 39 patients with F1/F2 fibrosis, 44 patients with F4 fibrosis, 34 patients with HCC were applied to CM10 arrays and analyzed using the SELDI-TOF ProteinChip System (PBS-IIc...

...after anion-exchange fractionation."

"All patients had chronic hepatitis C and histologically confirmed fibrosis stage/HCC. Data were analyzed for protein patterns by multivariate statistical techniques and artificial neural networks. A 4 peptide/protein multimarker panel (7486, 12,843, 44,293 and 53,598 Da) correctly identified HCCs with a sensitivity of 100% and specificity of 85% in a two way-comparison of HCV-cirrhosis versus HCV-HCC training samples (AUROC 0.943). Sensitivity and specificity for identification of HCC were 68% and 80% for random test samples. Cirrhotic patients could be discriminated against patients...

...using a 5 peptide/protein multimarker pattern (2873, 6646, 7775, 10,525 and 67,867 Da) with a specificity of 100% and a sensitivity of 85% in training samples (AUROC 0...

...a sensitivity and specificity of 80% and 67% for random test samples. Combination of the biomarker classifiers with APRI score and alfa-fetoprotein (AFP) improved the diagnostic performance. The 6646 Da marker protein for liver fibrosis was identified as apolipoprotein C-I. SELDI-TOF-MS technology combined...

4/3,K/36 (Item 10 from file: 135) Links  
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0000421039 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Scientists at Keio University, National Cancer Center Research Institute describe research in cancer immunology

Clinical Oncology week, January 29, 2007, p.230  
Page 25



DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
413

...TEXT: in multistage hepatocarcinogenesis," are detailed in a study published in Clinical Cancer Research. "Hepatocellular carcinoma (HCC) associated with chronic liver disease is known to show an obvious multistage process of tumor progression. We previously identified heat shock protein 70 as a molecular marker of early HCC during investigation of expression profiling in multistage hepatocarcinogenesis," scientists writing in the journal Clinical Cancer...

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...antibody against CAP2 and we confirmed the expression of CAP2 by immunoblotting and immunohistochemistry in HCC cell lines and HCC tissues. According to real-time quantitative PCR, the level of CAP2 mRNA was up-regulated in early HCC when compared with noncancerous liver tissue, and it was further up-regulated in progressed HCC. We raised a polyclonal antibody against CAP2, which showed a single 53-kDa band of strong intensity in the human HCC cell lines and HCC tissues but only a weak band in the noncancerous liver tissues in Western blot analysis. Immunohistochemical examination of CAP2 revealed its significant overexpression in early HCC when compared with noncancerous and precancerous lesions and in progressed HCC when compared with early HCC. Our findings show that CAP2 is up-regulated in HCC when compared with noncancerous and precancerous lesions," wrote R. Shibata and colleagues, Keio University, National...

4/3,k/37 (Item 11 from file: 135) Links  
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0000414604 (USE FORMAT 7 OR 9 FOR FULLTEXT)

New hepatocellular carcinoma study findings recently were reported by scientists in Japan

Hepatitis Weekly, January 22, 2007, p.93

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1100

... 1 (YB-1), the prototype member of this family, is reported to be a prognostic marker of malignant diseases other than hepatocellular carcinoma," wrote M. Yasen and colleagues, Juntendo University.

"The...

...region was related to the nuclear localization of dbpA."

DbpA was a more significant prognostic marker of hepatocellular carcinoma than YB-1," the authors reported.

They concluded, "The T-to-G...

...study from Japan has documented clinical features of hepatitis C virus (HCV)-related hepatocellular carcinoma (HCC) and their association with alpha-fetoprotein (AFP) and protein induced by vitamin K absence or antagonist-II.

"We investigated the differences in clinical features between AFP-predominant HCC and protein induced by vitamin K absence or antagonist-II (PIVKA-II)-predominant HCC, especially regarding host factors thought to contribute to hepatocarcinogenesis in chronic hepatitis C virus (HCV) infection," wrote Y. Yano and colleagues, Saga Social Insurance Hospital.

"HCV-related HCC patients (n=306) were divided into four groups according to median AFP (48.1 ng...

...platelet count (x 10 /ml) were, respectively, 81, 67, and 8.2 in AFP-predominant HCC (group A; n=66) vs. 50, 42, and 11.4 in PIVKA-II-predominant HCC (group P; n=52)," the authors reported.

"Tumor sizes (mm) in groups A and P...

...nodule in group A, and albumin and tumor distribution in group P. PIVKA-II-predominant HCC had a milder hepatitis and a better-preserved platelet count compared with AFP-predominant HCC," the investigators wrote.

The scientists concluded, "Considering the strong relation between hepatocarcinogenesis and hepatic inflammation with chronic HCV infection, these differences indicate that hepatocarcinogenic mechanisms in PIVKA-II-predominant HCC may differ from those in AFP-predominant HCC."

Yano and colleagues published their study in (Clinical features of hepatitis C virus-related hepatocellular...

...researchers in Japan reported on a proteomic analysis of autoantibodies in patients with hepatocellular carcinoma (HCC).

"To detect autoantibodies that could be diagnostic markers for HCC, we analyzed serum autoantibodies comprehensively that showed immunoreactivity to proteins in tumor tissue obtained from patients with HCC. Fifteen paired samples of HCC tissue and corresponding nontumorous liver tissue as well as five normal liver tissue samples were ...

...DE gels were identified by LC-MS/MS. These immunoreactive proteins were heat shock 70 kDa protein 1 (HSP70), glyceraldehyde 3-phosphate dehydrogenase, peroxiredoxin, and manganese superoxide dismutase (Mn-SOD).

"In HCC sera, occurrences of autoantibodies against these proteins were 7/15 (46.7%), 5/15 (33...

...statistical analysis, autoantibodies against HSP70, peroxiredoxin, and Mn-SOD showed significantly high-frequency immunoreaction in HCC sera," the scientists wrote.

The authors concluded, "The three antibodies were considered patient-specific antibodies in HCC and may be candidate diagnostic biomarkers for HCC."

Takashima and colleagues published their study in (Proteomic analysis of autoantibodies in patients with hepatocellular...

4/3,K/38 (Item 12 from file: 135) Links

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0000412955 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Researchers from Chinese University of Hong Kong, People's Republic of China, publish new studies and findings

Pharma Business Week, January 22, 2007, p.1086

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English

RECORD TYPE: FULLTEXT

Word Count:

1169

... According to recent research from Hong Kong, People's Republic of China, "A monomeric 17-kDa hemolysin designated as eryngeolysin was isolated from fresh fruiting bodies of the mushroom *Pleurotus eryngii*...

...China, quality of life (QoL) is predictive of survival in patients with unresectable hepatocellular carcinoma (HCC).

"Patients with unresectable HCC have a dismal prognosis. The objective of this study was to evaluate whether patient-reported...

...and colleagues, Chinese University of Hong Kong.

"Two hundred and thirty-three patients with unresectable HCC (mainly hepatitis B-associated) who were recruited into two separate randomized phase III clinical studies...

...QoL questionnaire, were associated with longer survival," the investigators wrote.

They concluded, "In the studied HCC population, patient-reported baseline QoL provides additional prognostic information that supplements traditional clinical factors, and is a new prognostic marker for survival for patients with unresectable HCC."

Yeo and colleagues published the results of their research in *Annals of Oncology* (Quality of...

4/3,K/39 (Item 13 from file: 135) Links

NewsRx Weekly Reports

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0000398205 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Researchers' work from University of Tokyo, Japan, adds to cancer treatment body of knowledge

Clinical Oncology week, January 8, 2007, p.532

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English

RECORD TYPE: FULLTEXT

Word Count:

1079

...TEXT: using three tumor markers" new findings in hepatocellular cancer. "Three tumor markers for hepatocellular carcinoma (HCC) are available in daily practice in Japan: alpha-fetoprotein (AFP), des-gamma-carboxy prothrombin (DCP...  
...fraction of alpha-fetoprotein (AFP-L3). To elucidate the predictability of these tumor markers on HCC recurrence after curative ablation, we enrolled 416 consecutive patients with naove HCC who had been treated by percutaneous ablation at our department from July 1997 to December...

"Tumor marker levels were determined immediately before and 2 months after the treatment. Complete ablation was defined...

...of Gastroenterology.

The researchers concluded: "Tumor markers pre-and post-ablation were significant predictors for HCC recurrence and can complement imaging modalities in the evaluation of treatment efficacy."

Tateishi and colleagues...

...Japan.

Study 2: Recent research from Japan has reported on the identification of TOMM34 (34 kDa-translocase of the outer mitochondrial membrane), which shows elevated expression in the majority of human...

4/3,K/40 (Item 14 from file: 135) Links  
NewsRx Weekly Reports  
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0000378742 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Journal reports outline National Taiwan University, Taiwan, research

Life Science Weekly, December 12, 2006, p.901

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1096

... C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

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...Lee and colleagues published their study in Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

4/3,K/41 (Item 15 from file: 135) Links  
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0000371573 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Researchers from National Taiwan University, Taiwan, report details of new studies and findings

Biotech Business Week, November 27, 2006, p.530

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1143

... C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

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"A candidate marker of about 8900 Da was detected as differentially expressed in patients with chronic hepatitis C and HCV related HCC. We identified this differentially expressed protein as complement C3a," the authors reported.

"The expression of C3a in HCC sera was further validated by PS20 chip immunoassay and western blotting. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC," the scientists observed.

They concluded, "The combination of SELDI-TOF MS and 2-DE provides...

...Lee and colleagues published their study in Proteomics (Identification

of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

4/3,K/42 (Item 16 from file: 135) Links  
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0000367319 (USE FORMAT 7 OR 9 FOR FULLTEXT)

New data from Kumamoto University, Japan, shed light on cancer treatment research

Cancer Vaccine Week, November 20, 2006, p.12

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1011

According to investigators in Japan, "Heat shock protein (HSP) 105 is a 105-kDa protein, recently discovered by serological analysis of recombinant cDNA expression libraries prepared from tumor cells...

...hepatocellular carcinoma.

"We previously reported that glypican-3 (GPC3) was overexpressed, specifically in hepatocellular carcinoma (HCC) and melanoma in humans, and it was useful as a novel tumor marker. We also reported that the preimmunization of BALB/c mice with dendritic cells pulsed with...

...GPC3 peptide therefore seemed to be useful for the immunotherapy of HLA-A24+ patients with HCC and melanoma," scientists in Japan report.

"In this report, we investigated whether the GPC3298-306...

...GPC3-reactive CTLs from the peripheral blood mononuclear cells (PBMC) of HLA-A24 (A\*2402)+ HCC patients," said Hiroyuki Komori at Kumamoto University and collaborators in Japan. "In addition, we used...

...restricted GPC3 epitopes to expand the applications of GPC3-based immunotherapy to the HLA-A2+ HCC patients. We found that the GPC3 (FVGEFFTDV) peptide could induce peptide-reactive CTLs in HLA...

...without inducing autoimmunity."

Komori and colleagues reported, "In five out of eight HLA-A2+ GPC3+ HCC patients, the GPC3 peptide-reactive CTLs were generated from PBMCs by in vitro stimulation with...

...peptide-reactive CTLs were also generated from PBMCs in four of six HLA-A24+ GPC3+ HCC patients."

The researchers concluded: "The inoculation of these CTLs reduced the human HCC tumor mass implanted into nonobese diabetic/severe combined immunodeficiency mice. Our study raises the possibility...

...these GPC3 peptides may therefore be applicable to cancer immunotherapy for a large number of HCC patients."

Komori and colleagues published their study in Clinical Cancer Research (Identification of HLA-A2...

4/3,K/43 (Item 17 from file: 135) Links  
NewsRx Weekly Reports  
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0000337170 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Studies from Israel, Taiwan and France add new findings to diagnostics body of knowledge

AIDS Weekly, September 25, 2006, p.58

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1156

... Recently, non-invasive biomarkers have been used to assess histological features. The most thoroughly evaluated biomarker is the FibroTest (FT) (AUROC 0.80 for fibrosis stages F2F3F4 vs. F0F1)."

Y. Maor...

...is in concordance with APRI and/or Forns, then we may confidently rely on the biomarker," reported the authors.

"Concordance rate for patients with presumably advanced or minimal liver disease was...

...C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

"Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University.

"We performed SELDI-TOF MS to identify differentially expressed proteins in HCC serum using weak cation exchange protein chips. Protein characterization was performed by 2-DE separation and nano flow LC-MS/MS. A total of 55 sera were collected from HCC patients and compared with those from 48 patients with chronic hepatitis and 9 healthy individuals.

"A candidate marker of about 8900 Da was detected as differentially expressed in patients with chronic hepatitis C and HCV related HCC. We identified this differentially expressed protein as complement C3a," the authors reported.

"The expression of C3a in HCC sera was further validated by pS20 chip immunoassay and western blotting. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC," the scientists observed.

They concluded, "The combination of SELDI-TOF MS and 2-DE provides...

...Lee and colleagues published their study in Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

4/3,K/44 (Item 18 from file: 135) Links  
NewsRx Weekly Reports  
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0000327571 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Recent findings in diagnostics described by researchers from Taiwan, the United States and France

Cancer weekly, August 22, 2006, p.409

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1156

...TEXT: C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

"Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University.

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...Lee and colleagues published their study in Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

...to cancer researchers in the United States, the "utility of EBV load as a tumor marker" in NPC patients "suggests that it might also serve as a screening test for individuals...

4/3,K/45 (Item 19 from file: 135) Links  
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0000319893 (USE FORMAT 7 OR 9 FOR FULLTEXT)

New findings from Taiwan, the United States and France in the area of diagnostics described

Cancer Weekly, July 25, 2006, p.393

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1156

...TEXT: C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

"Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University.

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"A candidate marker of about 8900 Da was detected as differentially expressed in patients with chronic hepatitis C and HCV related HCC. We identified this differentially expressed protein as complement C3a," the authors reported.

"The expression of C3a in HCC sera was further validated by p520 chip immunoassay and western blotting. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC," the scientists observed.

They concluded, "The combination of SELDI-TOF MS and 2-DE provides...

...Lee and colleagues published their study in Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

...to cancer researchers in the United States, the "utility of EBV load as a tumor marker" in NPC patients "suggests that it might also serve as a screening test for individuals...

4/3,K/46 (Item 20 from file: 135) Links  
NewsRx Weekly Reports  
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0000316265 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Complement C3a may be diagnostic of chronic hepatitis C and HCV-related HCC

Cancer Weekly, July 11, 2006, p.139

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
360

Complement C3a may be diagnostic of chronic hepatitis C and HCV-related HCC

...TEXT: C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

"Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University.

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"The expression of C3a in HCC sera was further validated by PS20 chip immunoassay and western blotting. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC," the scientists observed.

They concluded, "The combination of SELDI-TOF MS and 2-DE provides...

...Lee and colleagues published their study in Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

4/3,K/47 (Item 21 from file: 135) Links  
NewsRx Weekly Reports  
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0000198973 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Protein profiles find cancer markers in patients with chronic liver disease

Cancer Vaccine Week, March 14, 2005, p.31

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
421

...TEXT: any biological material studied. we used this approach to identify new biomarkers of hepatocellular carcinoma (HCC) in the sera of patients with cirrhosis."

"Sera from 82 patients with cirrhosis, either without (n=38) or with (n=44) HCC, were analyzed by SELDI-TOF MS, and the results of the two groups were compared...

...Anatomical Pathology service wrote.

"The most efficient protein peaks leading to discrimination of patients with HCC were selected (receiver operative characteristic curves). The highest-scoring peak combination was established in a...

...further.

"The intensity of 30 protein peaks significantly differed between cirrhotic patients with and without HCC. An algorithm including the 6 highest-scoring peaks allowed correct classification (presence or absence of HCC) of 92.5% of patients in the test sample set and 90% in the validation sample set. The highest discriminating peak (8900 Da) was purified further and was characterized as the C-terminal part of the v10 fragment of vitronectin.

"An in vitro study suggested that the increase of the 8900-Da fragment in the serum of patients with HCC may proceed from the cleavage of native vitronectin with metalloproteases, a family of enzymes whose activity is enhanced in HCC," researchers commented.

"In conclusion, global protein profiling is an efficient approach that enabled us to identify a catalytic fragment of vitronectin as a new serum marker of HCC in patients with chronic liver diseases," they said.

Paradis and colleagues published their study in Hepatology (Identification of a new marker of hepatocellular carcinoma by serum protein profiling of patients with chronic liver diseases. Hepatology, 2005 ...

4/3,K/48 (Item 22 from file: 135) Links  
NewsRx Weekly Reports  
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0000003188 (USE FORMAT 7 OR 9 FOR FULLTEXT)

"Liposomes for Targeted Gene Delivery in Vivo: Intracellular Fate of Liposome-Encapsulated DNA in Rodent Lines."

Gene Therapy Weekly, July 31, 1995, p.13

DOCUMENT TYPE: Research News LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
584

...TEXT: the tissue. Part of this DNA follows the subcellular fractionation profile of the mitochondrial matrix marker, malate dehydrogenase. In contrast, 14% of the liposomal DNA taken up by the liver was...

HCCcarcinoma.txt

...by covalently attaching a monoclonal antibody (AF-20) which recognizes with high affinity a 180 kDa cell surface glycoprotein that is abundantly expressed on the surface of human HCC cells and that undergoes rapid internalization upon antibody binding. A plasmid containing the lac Z...

4/3,K/49 (Item 1 from file: 357) Links

Derwent Biotech Res.

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0304067 DBA Accession No.: 2003-05852 PATENT

Diagnosing neoplasm and inhibiting tumor growth, by contacting tissue of mammal with detectably-labeled antibody which binds to human aspartyl (asparaginy) beta-hydroxylase antibody production against enzyme protein, vector expression in host cell for use in disease gene therapy

Author: WANDS J R; DE LA MONTE S M; DEUTCH A H; GHANBARI H A

Patent Assignee: WANDS J R; DE LA MONTE S M; DEUTCH A H; GHANBARI H A 2002

Patent Number: US 20020110559 Patent Date: 20020815 WPI Accession No.: 2003-066676 ( 200306 )

Priority Application Number: US 859604 Application Date: 20010517

National Application Number: US 859604 Application Date: 20010517

Language: English

Abstract: ...a transfection enhancing agent. Preferred Kit: The kit further comprises a means (e.g. detectable marker such as radioactive compound or Gd3+ or Fe++, for detecting binding of (I) to the... ...were specifically overexpressed in transformed malignant cells of human hepatocyte origin, the FOCUS hepatocellular carcinoma (HCC) cell line was used as an immunogen to generate monoclonal antibodies (mAb) that specifically or... ...recognize proteins associated with the malignant phenotype. A lambda gt11 cDNA expression library derived from HepG2 HCC cells was screened, ...cultures that were 70-80% confluent demonstrated that constitutively increased levels of AAH expression (85 kDa) in PHAAH-transfected cells were associated with significantly increased levels of PCNA (35 kDa) and Bcl-2 (25 kDa) and reduced levels of p21/waf1 (21 kDa) and p16 (16 kDa). However, the PHAAH stable transfectants also exhibited higher levels of wild-type p53 (53-55 kDa). Although AAH expression (85 kDa protein) in the stable transfectants was increased by only 75-100%, the levels of p16...

4/3,K/50 (Item 1 from file: 266) Links

FEDRIP

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00599661

Identifying No.: 2R01CA093840-05A2 Agency Code: CRISP

Genesis of Liver Carcinomas with Oval Cell Traits

Principal Investigator: HIXSON, DOUGLAS C

Address: DOUGLAS HIXSON@BROWN.EDU RHODE ISLAND HOSPITAL 593 EDDY STREET PROVIDENCE, RI 02903

Performing Org.: RHODE ISLAND HOSPITAL (PROVIDENCE, RI) , PROVIDENCE , RHODE ISLAND

Sponsoring Org.: NATIONAL CANCER INSTITUTE

Dates: 2004/01/02 To 2005/31/12 Fy : 2007

Summary: ...role in hepato-and cholangio-carcinogenesis. Over the past 4 years, our studies of cholangiocyte marker positive (CMP), bipotent, fetal liver epithelial cells (FLEC) have yielded novel monoclonal antibody based schemes... ...oval cells and will retain this capacity following spontaneous transformation in vitro and progression to HCC in vivo. In Specific Aim 1, we will employ a rapid transplantation model that replaces... ...with mitomycin C (mitoC/PH) to test the hypothesis that the expression of the cholangiocyte marker OC.4, a marker first seen at 2 after birth, identifies mature CMP-LEC that have a greatly diminished... ...BDEC will undergo incomplete hepatocytic differentiation in mitoC/PH treated rats

and progress to CMP-HCC. Spontaneous transformation of CMP-LEC will be accelerated by selection on plastic and/or soft... ..invasive growth. Specific Aim 4 will continue with the characterization of BD.1, a 170 kDa protein expressed by cholangiocytes but not oval cells that forms stable complexes with CLIP170, a...

4/3,K/51 (Item 1 from file: 149) Links

TGG Health&wellness DB(SM)

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02944498 Supplier Number: 106422241 (USE FORMAT 7 OR 9 FOR FULL TEXT )

The role of genetic polymorphisms in environmental health. (Research Review).

Kelada, Samir N.; Eaton, David L.; Wang, Sophia S.; Rothman, Nathaniel R.; Khoury, Muin J.

Environmental Health Perspectives , 111 , 8 , 1055(10)

June 15 ,

2003

Publication Format: Magazine/Journal

ISSN: 0091-6765

Language: English

Record Type: Fulltext Target Audience: Academic

Word Count: 11400 Line Count: 01145

...sub.1), a mycotoxin found in some foodstuffs, and an established risk for hepatocellular carcinoma (HCC), especially when combined with hepatitis virus exposure (Ross et al. 1992). The biotransformation of aflatoxin...

...a lack of enzyme and less active enzyme, respectively, was shown to result in increased HCC risk (London et al. 1995; McGlynn et al. 1995). Similarly, functional variants in CYP1A2 and...

...phase I metabolism (epoxidation) of aflatoxin (B.sub.1), would also be expected to modify HCC risk in exposed persons, although epidemiologic data for this have not yet been gathered. Biomarker studies of urinary aflatoxin metabolites and aflatoxin--albumin adducts in peripheral blood have validated their use as indicators of HCC risk at the group level, and polymorphisms in GSTM1 and EPHX1 yielded higher levels of...

...studies of exposures to environmental toxicants and toxins. Stratification of a studied health outcome or biomarker by relevant genotype (or phenotype) may allow for detection of different levels of risk among...

...epidemiologic studies and ultimately contributed to the development of a chemoprevention strategy for aflatoxin-induced HCC.

Additionally, studies on the health effects of exposure to regulated environmental contaminants that incorporate genetic... profiles

|                     |                           |         |
|---------------------|---------------------------|---------|
| Alcohol             | Esophageal cancer         | ALDH2   |
| Aflatoxin (B.sub.1) | Aflatoxin-albumin adducts | CYP1A2  |
|                     |                           | CYP3A4  |
|                     | HCC                       | GSTM1   |
|                     |                           | EPHX1   |
| Heterocyclic amines | Colon cancer              | NAT2    |
|                     | Breast cancer             | NAT2    |
|                     |                           | SULT1A1 |
| Aromatic amines     | Bladder cancer...         |         |

...Binkova B, Lewtas J, Miskova I, Rossner P, Cerna M, Mrackova G, et al. 1996. Biomarker studies in northern Bohemia. Environ Health Perspect

104:591-597.

Botto LD, Khoury MJ. 2001...

...Tokyo 110:559-565.

Heath EM, Morken NW, Campbell KA, Tkach D, Boyd EA, Strom DA.  
2001. Use of buccal cells collected in mouthwash as a source of DNA for  
clinical...

...and XRCC1 genes associated with ionizing radiation sensitivity.  
Carcinogenesis 22:917-922.

Humbert R, Adler DA, Disteché CM, Hassett C, Omiecinski CJ,  
Furlong CE. 1993. The molecular basis of the human...CF, Haugen A, Valerio  
F, et al. 1998. Urinary excretion of 1-hydroxypyrene as a marker for  
exposure to urban air levels of polycyclic aromatic hydrocarbons. Cancer  
Epidemiol Biomarkers Prev 7...

...337-340.

Richeldi L, Sorrentino R, Saltini C. 1993. HLA-DPB1 glutamate 69: a  
genetic marker of beryllium disease. Science 262:242-244.

Rosipal R, Lamoril J, Puy H, Da Silva V, Gouya L, De Rooij FW,  
et al. 1999. Systematic analysis of coproporphyrinogen oxidase...

...Rothman N, Stewart WF, Schulte PA. 1995. Incorporating biomarkers into  
cancer epidemiology: a matrix of biomarker and study design  
categories. Cancer Epidemiol Biomarkers Prev 4:301-311.

Rothman N, Wacholder S...

...Rebeck TR. 1999. Collection of genomic DNA by buccal swabs for  
polymerase chain reaction-based biomarker assays. Environ Health  
Perspect 107:517-520.

Ward MH, Nuckols JR, Weigel SJ, Maxwell SK...

...Perspect 102:215-219.

Whyatt RM, Perera FP, Jedrychowski W, Santella RM, Garte S, Bell  
DA. 2000. Association between polycyclic aromatic hydrocarbon-DNA  
adduct levels in maternal and newborn white blood...

4/3,K/52 (Item 2 from file: 149) Links

TGG Health&Wellness DB(SM)

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02923077 Supplier Number: 80744269 (USE FORMAT 7 OR 9 FOR FULL TEXT )

Variability in Aflatoxin-Albumin adduct levels and effects of hepatitis B and C  
virus infection and glutathione S-transferase M1 and T1 genotype. (Articles).

Ahsan, Habibul; Wang, Li-Yu; Chen, Chien-Jen; Tsai, Wei-Yann; Santella, Regina M.  
Environmental Health Perspectives , 109 , 8 , 833(5)

August ,

2001

Publication Format: Magazine/Journal

ISSN: 0091-6765

Language: English

Record Type: Fulltext Target Audience: Academic

Word Count: 5183 Line Count: 00477

Text:

...the intraindividual variability in AF(B.sub.1)-albumin adducts, the most  
reliable long-term biomarker of AF(B.sub.1) exposure, and whether  
the baseline or follow-up adduct levels...

\*\*\*\*\*

Hepatocellular carcinoma (HCC) is one of the leading causes of cancer-related mortality in the world. In Taiwan, it is the most common cause of cancer death among men (1). Risk factors for HCC include chronic hepatitis B virus (HBV) infection, hepatitis C virus (HCV) infection, cigarette smoking, and...

...albumin adduct, but AF(B.sub.1)-albumin adducts have been considered the most reliable biomarker of AF(B.sub.1) exposure in humans (5). Because of a relatively long half...

...months (5). AF(B.sub.1)-albumin adduct has been shown to be related to HCC risk in a dose-response fashion among HBV surface antigen (HBsAg) carriers, and the biological...

...Hu-Hsi, Ma-Kung, and Pai-Hsa) in Penghu Islets, an area with the highest HCC incidence in Taiwan, but in a manner so that half (n = 132) of them were...

...status could not be determined.

#### Discussion

Although HBV infection is the key etiologic element in HCC, AF(B.sub.1) exposure is an important cofactor in HCC carcinogenesis. AF(B.sub.1)-albumin adduct is considered a reliable indicator of the biologically...

...recruitment (i.e., at time 1), the respondents were briefed about the risk factors for HCC, including hepatitis viruses and dietary aflatoxin exposure. Therefore, one possibility is that the participants...

...nested study carried out in Shanghai that found an association between aflatoxin-albumin adducts and HCC found no association with dietary aflatoxin consumption based on in-person food frequency interview combined ...

...of 42 residents of Guangxi Province in China established that albumin adducts were a valid marker of aflatoxin exposure by comparing adduct levels to the levels of aflatoxin in portions of...

...Chen CJ, Yu MW, Liaw YF, Wang LW, Chiamprasert S, Matin F, Hirvonen A, Bell DA, Santella RM. Chronic hepatitis B carriers with null genotypes of glutathione S-transferase M1 and...risk of hepatocellular carcinoma in Taiwan. Int J Cancer 87:620-625 (1996).

(9.) Bell DA, Taylor JA, Paulson DF, Robertson CN, Mohler JL, Lucier GW. Genetic risk and carcinogen exposure...

4/3,K/53 (Item 3 from file: 149) Links

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02915238 Supplier Number: 67183911 (USE FORMAT 7 OR 9 FOR FULL TEXT )  
Applying Biomarker Research.

Bennett, David A.; Waters, Michael D.  
Environmental Health Perspectives , 108 , 9 , 907  
Sept ,  
2000

Publication Format: Magazine/Journal

ISSN: 0091-6765

Language: English

Record Type: Fulltext Target Audience: Academic

Word Count: 4152 Line Count: 00364

Applying Biomarker Research.

...to understand environmentally mediated disease and to improve the process of risk assessment. A valid biomarker could also be considered a key event linking a specific environmental exposure to a health...

...most closely related to the disease.

(Figure 1 ILLUSTRATION OMITTED)

Over the last decade the biomarker model has resulted in considerable research enterprise and nourished and challenged the emerging field of...

...field and their extension into the clinical environment. At the same time, much of the biomarker research has remained confined to the laboratory, with the promise of successful applications to improve public health or mitigate disease largely unmet.

A biomarker should allow better measurements of exposure or earlier identification of health effects. Biomarkers can provide...

...U.S. EPA held "Biomarkers: Taking Stock, An EPA/NIEHS In-House Workshop on Applying Biomarker Research" on 30-31 August 1999 in Chapel Hill, North Carolina. Approximately 90 participants explored biomarker research through presentations by invited plenary speakers, posters on individual research projects, and breakout discussion...

...precursor step that is a necessary element of the mode of action or is a marker for such an element. Examples of key events include metabolism, receptor--ligand changes, increased cell...

...to accidental mercury or methylparathion exposures. Lead in blood, plasma, or bone is an excellent biomarker of exposure and potentially of effects. Lead biomarkers also illustrate a challenge in understanding the...

...backward to look at populations that have exposures to various agents to see if the biomarker rises as their exposure rises. In either case establishing linkage between exposure and disease is...

...relating a) exposures to aflatoxin (B.sub.1), b) the etiology of human hepatocellular carcinoma (HCC), and c) intervention with oltipraz as a chemo-preventive agent for HCC (8). Biomarkers included aflatoxin--albumin adducts in serum and aflatoxin--mercapturic acid excreted in urine...

...one might develop an hypothesis to test. This was appropriate in the early stages of biomarker validation. Our understanding of the science supporting molecular epidemiology has now advanced so that we...

...studies and the regulatory community trying to apply this information.

An intended use of the biomarker may be in the clinical setting, where the focus is on the individual and there...

...fetus. Environ Health Perspect 107(suppl 3):451-460 (1999).

(10.) El-Masri HA, Bell DA, Portier CJ. Effects of glutathione transferase polymorphism on the risk estimates of dichloromethane to humans ...

...NW, Washington DC 20460. Telephone: (703) 603-8759. Fax: (703) 603-9146. E-mail: bennett.da@epa.gov

(\*) On assignment from the U.S. EPA Office of Emergency and Remedial Response...



4/3,K/54 (Item 4 from file: 149) Links  
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01713503 Supplier Number: 19696795 (USE FORMAT 7 OR 9 FOR FULL TEXT )  
Hepatitis G virus: is it a hepatitis virus?

Cheung, Ramsey C.; Keefe, Emmet B.; Greenberg, Harry B.  
The Western Journal of Medicine , v167 , n1 , p23(11)  
July ,  
1997

Publication Format: Magazine/Journal; Refereed  
ISSN: 0093-0415  
Language: English  
Record Type: Fulltext; Abstract Target Audience: Professional  
Word Count: 9257 Line Count: 00752

...antibodies to recombinant HGV putative envelope protein E2 was recently described as a potential serological marker for immunity to HGV infection.(20) Antibodies to E2 were found in 9% of 80...

...became HGV RNA negative. These data suggest that antibodies to E2 might be a serological marker for diagnosing recovery from HGV infection, but further studies are necessary. Detection of HGV RNA...44) The disease in the three patients with HGV RNA as the only identifiable viral marker was mild, and only one remained persistently viremic with elevated SGPT levels for 4 years...positive posttransplant.

#### Hepatocellular Carcinoma

Serum HGV RNA has been found in patients with hepatocellular carcinoma (HCC). HGV RNA was found in only one of 28 HCV-infected patients with HCC.(77) Among patients transplanted with HCC. HGV RNA was found in four of 34 patients of whom three were coinfectd with ...

...with HBV.(78) GBV-C RNA was found in 11 of 111 (10%) cases of HCC in Japan, but 10 of 11 were coinfectd with HCV and one with HBV. HGV...

...found as the only infectious viral agent in seven (8%) of 85 Austrian patients with HCC.(79) Since the majority of patients with HCC were coinfectd with either HBV or HCV, the role of HGV in the etiology of HCC is unclear. Therefore, with the exception of the Austrian study,(71) HGV is unlikely to be a major etiologic agent of HCC.

#### Response of HGV to Antiviral Therapy

There are no data on treatment of patients who...Med 1996;  
336:747-754  
(45.) Aach RD, Stevens CE, Hollinger FB, Mosley JW, Peterson DA, Taylor PE, et al. Hepatitis C virus infection in post-transfusion hepatitis. N Engl J...

4/3,K/55 (Item 5 from file: 149) Links  
TGG Health&wellness DB(SM)  
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01438001 Supplier Number: 14699208 (USE FORMAT 7 OR 9 FOR FULL TEXT )  
Molecular virology and pathogenesis of hepatitis B.

Lau, Johnson Y.N.; Wright, Teresa L.  
The Lancet , v342 , n8883 , p1335(6)  
Nov 27 ,  
1993

Publication Format: Magazine/Journal

ISSN: 0099-5355

Language: English

Record Type: Fulltext; Abstract Target Audience: Professional

Word Count: 4638 Line Count: 00403

...HBV-associated hepatocarcinogenesis, and current and future approaches to treatment.

|                  |                 |   |
|------------------|-----------------|---|
| Testing          | Assays          | Clinical significance                       |
| HBsAg            |                 | Marker                                      |
| of HBV infection |                 |   |
| Anti-HBs         |                 | Immune against/protected from HBV([dagger]) |
| HBeAg            | RIA/EIA/RPHA... |   |

|  |                        |
|--|------------------------|
| ...and HBsAg. The smallest transcript (0.7 kb) | encodes the X protein. |
| HBV protein                                    | Size (kDa)(*)          |
| Core   | p21                    |
| Pre-core (HBeAg)                               | p25[→]p p16            |
| Surface (HBsAg)                                | p24/gp27               |

Function, clinical significance  
Protein of core particle; kinase activity (role in replication?)  
Pre-core/core cleaves to HBeAg; good marker of active HBV replication and role in inducing immunotolerance  
Envelope protein...

...Even though the pre-core sequence is not essential for replication, HBeAg is a good marker of active HBV replication because the pre-core/core gene product is generated from the...enhancer and hence replication.

#### Hepatocarcinogenesis

The strong association of persistent HBV infection and hepatocellular carcinoma (HCC) is intriguing, yet poorly understood. Although the relative risk of HCC developing in HBV carriers is as high as 100 times that in matched controls, it usually takes decades for HCC to emerge. Since HBV integration can occur early, this suggests that HBV does not have...

...c-ras, have been implicated but none has been shown to be consistently activated in HCC. The strong association of cirrhosis with HCC suggests that the common pathway for hepatocarcinogenesis may be chronic hepatic injury and regeneration, which in some way promote the induction or selection of a malignant clone.

HCC may well be a heterogeneous disease with cellular oncogene and common pathway models both operating...

...Further understanding of this heterogeneity may help in the establishment of the mechanisms involved in HCC--as happened with our understanding of the pathobiology of lymphoma and leukaemia in the wake ...

4/3,K/56 (Item 1 from file: 444) Links  
New England Journal of Med.  
(c) 2007 Mass. Med. Soc. All rights reserved.  
00126660  
Copyright 2005 by the Massachusetts Medical Society

Case 23-2005: A 57-Year-Old Man with a Mass in the Liver (Case Records of the Massachusetts General Hospital)

# HCCcarcinoma.txt

Tanabe, Kenneth K.; Blaszkowsky, Lawrence S.; Chung, Raymond T.; Blake, Michael A.; Lauwers, Gregory Y.  
The New England Journal of Medicine  
Jul 28 , 2005 ; 353 (4),pp 401-410  
Line Count: 00429 Word Count: 05928

## Text:

...products from the precore or core region yield secreted hepatitis B e antigen (HBeAg), a marker of active replication that can also be confirmed by molecular tests for circulating HBV DNA... ..growth control and set the stage for malignant transformation in the form of hepatocellular carcinoma (HCC). The illustration is adapted from Chisari (Ref. 4) \*.\*\*FIGURE OMITTED...

## Cited References

...hepatocellular carcinoma. Am J Surg 1995;169:28-34.  
34. Bilimoria MM, Lauwers GY, Doherty DA, et al. Underlying liver disease, not tumor factors, predicts long-term survival after resection of...

? d s

| Set | Items | Description   |
|-----|-------|---|
| S1  | 78025 | S HEPATOCELLULAR ADJ CARCINOMA OR HCC                                     |
| S2  | 696   | S S1 AND (DALTON OR KILODALTON OR KDA OR DA)                              |
| S3  | 109   | S S2 AND (SERUM ADJ MARKER OR SERUM ADJ BIOMARKER OR MARKER OR BIOMARKER) |
| S4  | 56    | RD (unique items)   |

? s s1 and (DALTON OR KILODALTON OR KDA OR DA or molecular(w)weight)

Processing  
Processing

|    |          |  |
|----|----------|--|
|    | 78025    | S1   |
|    | 35445    | DALTON   |
|    | 44384    | KILODALTON   |
|    | 752464   | KDA  |
|    | 509426   | DA   |
|    | 14051742 | MOLECULAR  |
|    | 4192629  | WEIGHT   |
|    | 1043306  | MOLECULAR(W)WEIGHT   |
| S5 | 951      | S S1 AND (DALTON OR KILODALTON OR KDA OR DA OR MOLECULAR(W)WEIGHT) |

?

? s s5 AND (SERUM(W)MARKER OR SERUM(W)BIOMARKER OR MARKER OR BIOMARKER)

Processing

|    |         |   |
|----|---------|---|
|    | 951     | S5  |
|    | 3949820 | SERUM   |
|    | 1314164 | MARKER  |
|    | 8587    | SERUM(W)MARKER  |
|    | 3949820 | SERUM   |
|    | 137205  | BIOMARKER   |
|    | 878     | SERUM(W)BIOMARKER   |
|    | 1314164 | MARKER  |
|    | 137205  | BIOMARKER   |
| S6 | 128     | S S5 AND (SERUM(W)MARKER OR SERUM(W)BIOMARKER OR MARKER OR BIOMARKER) |

? rd

>>>w: Duplicate detection is not supported for File 393.

Duplicate detection is not supported for File 391.

Records from unsupported files will be retained in the RD set.

S7 67 RD (UNIQUE ITEMS)

? t s7/3,k/1-67

>>>W: KWIC option is not available in file(s): 399

7/3,k/1 (Item 1 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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0019956371 Biosis No.: 200800003310

Candidate markers for the detection of hepatocellular carcinoma in low- molecular weight fraction of serum

Author: Goldman Radoslav (Reprint); Resson Habtom W; Abdel-Hamid Mohamed; Goldman Lenka; Wang Antai; Varghese Rency S; An Yanming; Loffredo Christopher A; Drake Steven K; Eissa Sohair A; Gouda Iman; Ezzat Sameera; Moiseiwitsch Francoise Seillier

Author Address: Georgetown Univ, Lombardi Comprehens Canc Ctr, 3970 Reservoir Rd NW, Washington, DC 20057 USA\*\*USA

Author E-mail Address: rg26@georgetown.edu

Journal: Carcinogenesis (Oxford) 28 ( 10 ): p 2149-2153 OCT 2007 2007

Item Identifier: doi:10.1093/carcin/bgm177

ISSN: 0143-3334

Document Type: Article

Record Type: Abstract

Language: English

Candidate markers for the detection of hepatocellular carcinoma in low- molecular weight fraction of serum

Abstract: Hepatocellular carcinoma (HCC) represents an important public health problem in Egypt where up to 90% of HCC cases are attributable to hepatitis C viral (HCV) infection. Serum alpha-fetoprotein is elevated in only similar to 60% of HCC patients. The development of effective markers for the detection of HCC could have an impact on cancer mortality and significant public health implications worldwide. The objective of our study was to assess six candidate markers for detection of HCC identified by mass spectrometric analysis of enriched serum. The study examined 78 HCC cases and 72 age- and gender-matched cancer-free controls recruited from the Egyptian population. Matrix-assisted laser desorption-ionization time-of-flight mass spectrometric analysis of enriched low-molecular weight fraction of serum was used for identification of the candidate markers. Our analyses show that all six candidate markers are associated with HCC after adjustment for important covariates including HCV and hepatitis B viral infections. The marker candidates are independently predictive of HCC with areas under the receiver operating characteristic (AuROC) curve ranging from 63-93%. A combination... ..C3 and C4. In conclusion, a set of six peptides distinguished with high prediction accuracy HCC from controls in an Egyptian population with a high rate of chronic HCV infection. Further evaluation of these marker candidates for the diagnosis of HCC is needed.

DESCRIPTORS:

Chemicals & Biochemicals: candidate marker

Miscellaneous Terms: Concept Codes: low-molecular weight

7/3,k/2 (Item 2 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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0019493671 Biosis No.: 200700153412

Proteomics-based identification of biomarkers for predicting sensitivity to a PI3-kinase inhibitor in cancer

Author: Akashi Tetsuyuki; Nishimura Yumiko; Wakatabe Rumi; Shiwa Mieko; Yamori Takao (Reprint)

Author Address: Japanese Fdn Canc Res, Div Mol Pharmacol, Canc Chemotherapy Ctr, Koto Ku, 3-10-6 Ariake, Tokyo 1358550, Japan\*\*Japan

Author E-mail Address: yamori@jfcrr.or.jp

Journal: Biochemical and Biophysical Research Communications 352 ( 2 ): p 514-521  
 JAN 12 2007 2007  
 ISSN: 0006-291X  
 Document Type: Article  
 Record Type: Abstract  
 Language: English

Abstract: ...integrated approach allowed us to identify peaks from two proteins, 11.6 and 11.8 kDa, that showed significant correlations with the sensitivity to a PI3K inhibitor, LY294002. We found that the 11.8 kDa protein was a phosphorylated form of the 11.6 kDa protein. While the 11.8 kDa protein showed a positive correlation with the sensitivity to LY294002, the 11.6 kDa protein showed a negative correlation with that of the LY294002. The 11.6 kDa protein was purified chromatographically, and was identified by SELDI-TOF MS as the ribosomal P2...  
 ...for determining the sensitivity to LY294002, and that the ribosomal P2 could be a potential biomarker for predicting chemo sensitivity. (c) 2006 Elsevier Inc. All rights reserved.

## DESCRIPTORS:

Organisms: ...HCC-2998 cell line (Hominidae)  
 Chemicals & Biochemicals: ...phosphorylation, biomarker

7/3,K/3 (Item 3 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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19132806 Biosis No.: 200600478201

Enrichment of low molecular weight fraction of serum for MS analysis of peptides associated with hepatocellular carcinoma

Author: Orvisky Eduard; Drake Steven K; Martin Brian M; Abdel-Hamid Mohamed; Ressom Habtom W; Varghese Rency S; An Yanming; Saha Daniel; Hortin Glen L; Loffredo Christopher A; Goldman Radoslav (Reprint)

Author Address: Georgetown Univ, Lombardi Comprehensive Canc Ctr, Dept Oncol, LCCC Room S183, 3970 Reservoir Rd NW, Washington, DC 20057 USA\*\*USA

Author E-mail Address: rg26@georgetown.edu

Journal: Proteomics 6 ( 9 ): p 2895-2902 MAY 2006 2006

ISSN: 1615-9853

Document Type: Article

Record Type: Abstract

Language: English

Enrichment of low molecular weight fraction of serum for MS analysis of peptides associated with hepatocellular carcinoma

Abstract: A challenging aspect of biomarker discovery in serum is the interference of abundant proteins with identification of disease-related proteins... ..by denaturing ultrafiltration, which enables an efficient profiling and identification of peptides up to 5 kDa. We consistently detect several hundred peptide-peaks in MALDI-TOF and SELDI-TOF spectra of... ..demonstrate utility of the methods, we compared 20 enriched sera of patients with hepatocellular carcinoma (HCC) and 20 age-matched controls using MALDI-TOF. The comparison of 332 peaks at  $p < 0.001$  identified 45 differentially abundant peaks that classified HCC with 90% accuracy in this small pilot study. Direct TOF/TOF sequencing of the most... ..with high probability des-Ala-fibrinopeptide A. This study shows that enrichment of the low molecular weight fraction of serum facilitates an efficient discovery of peptides that could serve as biomarkers for detection of HCC as well as other diseases.

7/3,K/4 (Item 4 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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19132803 Biosis No.: 200600478198

HCCcarcinoma.txt

Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach

Author: Lee I-Neng; Chen Chien-Hung; Sheu Jin-Chuan; Lee Hsuan-Shu; Huang Guan-Tam; Chen Ding-Shinn; Yu Chen-Yin; Wen Chu-Ling; Lu Fung-Jou; Chow Lu-Ping (Reprint)

Author Address: Natl Taiwan Univ, Coll Med, Grad Inst Biochem and Mol Biol, 1, Sec 1, 1 Jen Ai Rd, Taipei 10018, Taiwan\*\*Taiwan

Author E-mail Address: lupin@ha.mc.ntu.edu.tw

Journal: Proteomics 6 ( 9 ): p 2865-2873 MAY 2006 2006

ISSN: 1615-9853

Document Type: Article

Record Type: Abstract

Language: English

Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach

Abstract: Although the significant risk factors for hepatocellular carcinoma ( HCC) are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need. We performed SELDI-TOF MS to identify differentially expressed proteins in HCC serum using weak cation exchange protein chips. Protein characterization was performed by 2-DE separation and nano flow LC-MS/MS. A total of 55 sera were collected from HCC patients and compared with those from 48 patients with chronic hepatitis and 9 healthy individuals. A candidate marker of about 8900 Da was detected as differentially expressed in patients with chronic hepatitis C and hepatitis C virus (HCV)related HCC. We identified this differentially expressed protein as complement C3a. The expression of C3a in HCC sera was further validated by PS20 chip immunoassay and western blotting. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC. The combination of SELDI-TOF MS and 2-DE provides a solution to identify disease...

7/3,K/5 (Item 5 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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19083278 Biosis No.: 200600428673

Increased expression and phosphorylation of liver glutamine synthetase in well-differentiated hepatocellular carcinoma tissues from patients infected with hepatitis C virus

Author: Kuramitsu Yasuhiro; Harada Toshio; Takashima Motonari; Yokoyama Yuuichirou; Hidaka Isao; Iizuka Norio; Toda Tosifusa; Fujimoto Masanori; Zhang Xiulian; Sakaida Isao; Okita Kiwamu; Oka Masaaki; Nakamura Kazuyuki (Reprint)

Author Address: Yamaguchi Univ, Dept Biochem and Biomol Recognit, Sch Med, Minami Kogushi 1-1-1, Ube, Yamaguchi 7558505, Japan\*\*Japan

Author E-mail Address: nakamura@yamaguchi-u.ac.jp

Journal: Electrophoresis 27 ( 8, Sp. Iss. SI ): p 1651-1658 APR 2006 2006

ISSN: 0173-0835

Document Type: Article

Record Type: Abstract

Language: English

Abstract: Hepatocellular carcinoma (HCC) is one of the most common fatal cancers, and chronic infection with hepatitis C virus... ..be one of the main causes in Japan. To identify diagnostic or therapeutic biomarkers for HCC associated with HCV (HCV-HCC), we tried to elucidate the factors related to the products from cancerous tissues of HCV-infected patients. From proteomic differential display analysis of liver tissue samples from HCV-HCC cancerous tissues and corresponding non-cancerous tissues from patients, three protein spots of the same molecular mass (42 kDa), whose expression increased in well-differentiated cancerous tissues, were detected. Although their pI were different... ..The tryptic peptides of the most acidic GS

HCCcarcinoma.txt

isoform lost the signal of 899.5 Da, corresponding a peptide of SASIRIPR, and gained a signal of 1059.5 Da, which was submitted to PSD analysis. PSD analysis showed the neutral loss by elimination of two phosphate groups, supposed to be on serine residues of the 899.5-Da peptide, from serine 320 to arginine 327 in GS. PMF followed by PSD analysis is...

DESCRIPTORS:

Chemicals & Biochemicals: ...expression, phosphorylation, biomarker; ...  
...expression, phosphorylation, biomarker

7/3,k/6 (Item 6 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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18536599 Biosis No.: 200510231099

Hepatitis B virus X protein: Structure-function relationships and role in viral pathogenesis

Book Title: Handbook of Experimental Pharmacology

Author: Kumar V (Reprint); Sarkar D P

Book Author/editor: Gossen M (Editor); Kaufmann J (Editor); Triezenberg SJ (Editor)

Author Address: Int Ctr Genet Engr and Biotechnol, Virol Grp, Aruna Asaf Ali Marg

POB 10504, New Delhi 110067, India\*\*India

Author E-mail Address: vijay@icgeb.res.in

Series Title: HANDBOOK OF EXPERIMENTAL PHARMACOLOGY 166 p 377-407 2004

Book Publisher: SPRINGER-VERLAG BERLIN, HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

ISSN: 0073-0033\_(print) ISBN: 3-540-21095-4 (H)

Document Type: Book Chapter

Record Type: Abstract

Language: English

Abstract: The hepatitis B virus (HBV) genome codes for a 16.5-KDa protein termed pX or HBx which is a prevalent marker in the liver of patients with hepatitis B-associated hepatocellular carcinoma (HCC). Although the specific function of HBx in natural infection remains elusive, it is considered to play an important role in the etiology of HBV-induced HCC. It is a multifunctional regulatory protein that is best characterized as promiscuous transactivator. It can...

7/3,k/7 (Item 7 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

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18187035 Biosis No.: 200500092948

Identification of a new marker of hepatocellular carcinoma by serum protein profiling of patients with chronic liver diseases

Author: Paradis Valerie (Reprint); Degos Francoise; Dargere Delphine; Pham Nanou;

Belghiti Jacques; Degott Claude; Janeau Jean-Louis; Bezeaud Annie; Delforge

Dominique; Cubizolles Myriam; Laurendeau Ingrid; Bedossa Pierre

Author Address: Serv Anat Pathol, Hop Beaujon, 100 Blvd Gen Leclerc, F-92100, Boulogne, France\*\*France

Author E-mail Address: vparadis@teaser.fr

Journal: Hepatology 41 ( 1 ): p 40-47 January 2005 2005

Medium: print

ISSN: 0270-9139 \_(ISSN print)

Document Type: Article

Record Type: Abstract

Language: English

Identification of a new marker of hepatocellular carcinoma by serum protein profiling of patients with chronic liver diseases

# HCCcarcinoma.txt

Abstract: ...any biological material studied. We used this approach to identify new biomarkers of hepatocellular carcinoma (HCC) in the sera of patients with cirrhosis. Sera from 82 patients with cirrhosis, either without (n = 38) or with (n = 44) HCC, were analyzed by SELDI-TOF MS, and the results of the two groups were compared. The most efficient protein peaks leading to discrimination of patients with HCC were selected (receiver operative characteristic curves). The highest-scoring peak combination was established in a... further. The intensity of 30 protein peaks significantly differed between cirrhotic patients with and without HCC. An algorithm including the six highest-scoring peaks allowed correct classification (presence or absence of HCC) of 92.5% of patients in the test sample set and 90% in the validation sample set. The highest discriminating peak (8,900 Da) was purified further and was characterized as the C-terminal part of the V10 fragment of vitronectin. An in vitro study suggested that the increase of the 8,900-Da fragment in the serum of patients with HCC may proceed from the cleavage of native vitronectin with metalloproteases, a family of enzymes whose activity is enhanced in HCC. In conclusion, global protein profiling is an efficient approach that enabled us to identify a catalytic fragment of vitronectin as a new serum marker of HCC in patients with chronic liver diseases.

7/3,K/8 (Item 8 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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17782856 Biosis No.: 200400149517

Proteomic profiling of heat shock protein 70 family members as biomarkers for hepatitis C virus-related hepatocellular carcinoma.

Author: Takashima Motonari; Kuramitsu Yasuhiro; Yokoyama Yuuichiro; Iizuka Norio; Toda Toshifusa; Sakaida Isao; Okita Kiwamu; Oka Masaaki; Nakamura Kazuyuki (Reprint)

Author Address: Department of Biochemistry and Biomolecular Recognition, Yamaguchi University School of Medicine, 1-1-1 Minami-Kogushi, Ube, Yamaguchi, 755-8505, Japan\*\*Japan

Author E-mail Address: nakamura@yamaguchi-u.ac.jp

Journal: Proteomics 3 ( 12 ): p 2487-2493 December 2003 2003

Medium: print

ISSN: 1615-9853 \_(ISSN print)

Document Type: Article

Record Type: Abstract

Language: English

Abstract: To identify proteins linked to the pathogenesis of hepatocellular carcinoma (HCC) associated with hepatitis C virus (HCV), we profiled protein expression levels in samples of HCC. To identify essential proteins, ten samples of HCV-related HCC were analyzed by two-dimensional gel electrophoresis and matrix-assisted laser desorption/ionization-time of... liver tissues. We focused on four members of the heat shock protein 70 family: 78 kDa glucose-regulated protein (GRP78), heat shock cognate 71 kDa protein (HSC70), 75 kDa glucose-regulated protein (GRP75), and heat shock 70 kDa protein 1 (HSP70.1). These results were confirmed by immunoblot analysis. In an additional 11... There has been no report describing overexpression of these four proteins simultaneously in HBV-related HCC as well as nonviral HCC. Our results suggest that these four proteins play important roles in the pathogenesis of HCV-related HCC and could be molecular targets for diagnosis and treatment of this disease.

DESCRIPTORS:

Chemicals & Biochemicals: ...biomarker; ... ...biomarker; ... ...cancer biomarker, proteomic profiling

7/3,K/9 (Item 9 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)



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17764972 Biosis No.: 200400132326

Identification of a new marker of hepatocellular carcinoma ( HCC) by serum protein profiling of cirrhotic patients using SELDI-TOF proteinchip.

Author: Paradis Valerie (Reprint); Degos Francoise; Dargere Delphine; Pham Nanou; Belghiti Jacques; Degott Claude; Janeau Jean-Louis; Delforge Dominique; Cubizole Myriame; Bedossa Pierre

Author Address: CNRS, Hopital Beaujon, Clichy, France\*\*France

Journal: Hepatology 38 ( 4 Suppl. 1 ): p 752A October 2003 2003

Medium: print

Conference/Meeting: 54th Annual Meeting of the American Association for the Study of Liver Diseases Boston, MA, USA October 24-28, 2003; 20031024

Sponsor: American Association for the Study of Liver Diseases

ISSN: 0270-9139 \_(ISSN print)

Document Type: Meeting; Meeting Abstract

Record Type: Abstract

Language: English

Identification of a new marker of hepatocellular carcinoma ( HCC) by serum protein profiling of cirrhotic patients using SELDI-TOF proteinchip.

Abstract: ...any biological material studied. We used this approach to identify new biomarkers of hepatocellular carcinomas (HCC) in serum of cirrhotic patients. Material and methods: Serum protein profiles of 83 cirrhotic patients without (n=43) or with HCC (n=40) were analysed by the SELDI-TOF technology and proteomic profiles of the two... were compared. The most efficient protein peaks allowing the discrimination of patients with or without HCC were selected. Diagnostic value of each peak isolated, or in combination, was assessed (ROC curves... An algorithm including the 5 most performing peaks allowed correct classification (presence or absence of HCC) of 93% of cases. The most performing peak (8900 Da) was further purified by sequential enrichment through affinity column, recovery of the band on a... protein profiling is a powerful approach that allowed the identification and characterisation of a new serum marker of HCC in patients with cirrhosis.

7/3,k/10 (Item 10 from file: 5) Links

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17660992 Biosis No.: 200400031749

SELDI-TOF-MS PROFILING OF SERUM FOR DETECTION OF HEPATOCELLULAR CARCINOMA PROGRESSION IN HEPATITIS B AND HEPATITIS C INFECTED PATIENTS.

Author: Drake Richard R (Reprint); Steel Laura F; Adam Bao-Ling; Marrero Jorge; Semmes O J; Hann Hie-won; Block Timothy; Johnson David A

Author Address: Norfolk, VA, USA\*\*USA

Journal: Digestive Disease Week Abstracts and Itinerary Planner 2003 p Abstract No. 755 2003 2003

Medium: e-file

Conference/Meeting: Digestive Disease 2003 FL, Orlando, USA May 17-22, 2003; 20030517

Sponsor: American Association for the Study of Liver Diseases

American Gastroenterological Association

American Society for Gastrointestinal Endoscopy

Society for Surgery of the Alimentary Tract

Document Type: Meeting; Meeting Abstract

Record Type: Abstract

Language: English

Abstract: ...HCV) and who are at high risk for the development of virus-associated hepatocellular carcinoma (HCC). METHODS: The SELDI-TOF-MS (Surface Enhanced Laser Desorption/Ionization Time of Flight Mass Spectrometry... of biological mixtures. In one set of experiments, serum samples from patients with HCV-related HCC (n = 8), patients with HCV cirrhosis (n= 8), patients with chronic non-cirrhotic HCV (n...

HCCcarcinoma.txt

...diagnosed with HBV-associated cirrhosis, plus serum from these same 10 patients after progression to HCC were analyzed. Specimens were applied in duplicate to a Bioprocessor containing IMAC3-copper ProteinChip arrays... automated using the Biomek 2000 robot. Clustering and classification analyses were performed using the Ciphergen Biomarker Wizard and Biomarker Patterns software packages, respectively. The different classification trees were generated utilizing multiple protein peaks in the mass range of 2-10 kDa. RESULTS: The serum protein profiles of patients with HCV-associated HCC could be distinguished from healthy controls with a sensitivity and specificity of 81%. Profiles of... 87%/94% in cirrhotic patients. Profiling comparisons of non-cirrhotic HCV patients with the HCV/HCC patients was effective (81%/75%), and non-cirrhotic HCV sera could be distinguished from cirrhotic... plus cirrhosis were compared to their matched samples taken at the time of diagnosis of HCC, differences in serum protein profiles were detected with a sensitivity of 94% and specificity of... system as a surveillance tool to follow progression of viral hepatitis, cirrhosis and development of HCC. Supported by the NCI Early Detection Research Network..

7/3,K/11 (Item 11 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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16847785 Biosis No.: 200200441296

Cloning and characterization of a novel 90 kDa 'companion' auto-antigen of p62 overexpressed in cancer

Author: Hoo Linda Soo; Zhang Jianying Y; Chan Edward K L (Reprint)

Author Address: Department of Molecular and Experimental Medicine, Scripps Research Institute, 10550 North Torrey Pines Road, La Jolla, CA, 92037, USA\*\*USA

Journal: Oncogene 21 ( 32 ): p 5006-5015 25 July, 2002 2002

Medium: print

ISSN: 0950-9232

Document Type: Article

Record Type: Abstract

Language: English

Cloning and characterization of a novel 90 kDa 'companion' auto-antigen of p62 overexpressed in cancer

Abstract: ...II mRNA. p62 was initially shown to be recognized by auto-antibodies in hepatocellular carcinoma (HCC) but now anti-p62 has been described in diverse malignancies. p62 is uniformly expressed in fetal liver and prominently in 33% of HCC nodules, but not detectable in adult liver or normal tissue adjacent to HCC nodules. In this study, a 90 kDa protein (p90), auto-antibodies to which were found associated with anti-p62 responses in the same HCC patient group, was identified by cDNA expression cloning. Indirect immunofluorescence showed that, like p62, p90... anti-p62, anti-Koc, and anti-CENP-F, auto-antibodies to p90 represent a new marker for tumors such as HCC and gastric cancer. Our data support the working hypothesis that auto-antibody production in cancer ...

7/3,K/12 (Item 12 from file: 5) Links

Fulltext available through: STIC Full Text Retrieval Options

Biosis Previews(R)

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16847767 Biosis No.: 200200441278

Molecular cloning and characterization of a novel gene which is highly expressed in hepatocellular carcinoma

Author: Zeng Jin-Zhang; Wang Hong-Yang (Reprint); Chen Zheng-Jun; Ullrich Axel; Wu Meng-Chao

Author Address: International Cooperation Laboratory on Signal Transduction, Eastern Hepatobiliary Surgical Institute, Secondary Military Medical University, 225 Changhai Road, Shanghai, 200438, China\*\*China

Journal: Oncogene 21 ( 32 ): p 4932-4943 25 July, 2002 2002  
 Medium: print  
 ISSN: 0950-9232  
 Document Type: Article  
 Record Type: Abstract  
 Language: English

Abstract: ...gain new insight into the molecular mechanism underlying the pathogenesis of human primary hepatocellular carcinoma (HCC), we searched for HCC-specific molecules through screening genes that are differentially expressed between cancerous and noncancerous counterparts of liver and identified a novel HCC-associated gene, HCCA1 encoding a apprx80 kDa cytoplasmic protein that contains several proline-rich motifs likely for SH3-binding. HCCA1 transcript, albeit present in some adult tissues, is up-regulated selectively in HCC but not in other tumor cells. High expression of HCCA1 occurs as a late event... ..the degree of tumor progression. When treated with antisense oligonucleotides to HCCA1, HCCA1 expression in HCC cells (HuH-7) was effectively suppressed and cell growth was down-regulated in a time... ..data strongly suggest that HCCA1 is a positive effector in cell proliferation and contributes to HCC carcinogenesis and progression. We believe that this protein will serve as a novel useful marker for HCC and is a potential target for pharmaceutical intervention of this malignant disease.

7/3,k/13 (Item 13 from file: 5) Links  
 Fulltext available through: STIC Full Text Retrieval Options  
 Biosis Previews(R)  
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 15335731 Biosis No.: 200000054044  
 Serum 90K/MAC-2BP glycoprotein levels in hepatocellular carcinoma and cirrhosis

Author: Correale M (Reprint); Giannuzzi V; Iacovazzi P A; Valenza M A; Lanzillotta S; Abbate I; Quaranta M; Caruso M L; Elba S; Manghisi O G  
 Author Address: IRCCS "S.De Bellis", Via Andrea da Bari 84, 70121, Bari, Italy\*\*Italy  
 Journal: Anticancer Research 19 ( 4C ): p 3469-3472 July-Aug., 1999 1999  
 Medium: print  
 ISSN: 0250-7005  
 Document Type: Article  
 Record Type: Abstract  
 Language: English

Abstract: 90K/MAC-2BP glycoprotein is a serum tumour marker, member of the scavenger receptor cysteine rich (SRCR) protein superfamily, involved in different immunological mechanisms... ..monoclonal antibody in 11 chronic active hepatitis (CAH), 48 liver cirrhosis and 36 hepatocellular carcinoma (HCC). In comparison, the same samples were also tested for AFP. According to a cut-off... ..specificity in 50 controls, we observed increasing positivities from CAH to cirrhosis and then to HCC (27%, 50% and 78%, respectively). In cirrhotic patients 90K levels were associated with the presence... ..hepatic patients. However, further investigations are needed before proposing 90K as a clinical useful tumour marker in the progression from cirrhosis to HCC.

DESCRIPTORS:  
 Chemicals & Biochemicals: 90-kilodalton-MAC-2BP glycoprotein... ..serum level, tumor progression marker

7/3,k/14 (Item 14 from file: 5) Links  
 Fulltext available through: STIC Full Text Retrieval Options  
 Biosis Previews(R)  
 (c) 2008 The Thomson Corporation. All rights reserved.  
 11842279 Biosis No.: 199396006695  
 A new tumor-associated antigen defined by a monoclonal antibody directed to gastric adenocarcinoma

HCCcarcinoma.txt

Author: Watanabe Ryoji; Johzaki Hiroshi; Iwasaki Hiroshi (Reprint); Kikuchi Masahiro; Ikeda Seiyo  
Author Address: Dep. Pathology, Fukuoka Univ. Sch. Med., 7-45-1 Nanakuma, Jonan-ku, Fukuoka 814-01, Japan\*\*Japan  
Journal: Cancer (Philadelphia) 71 ( 8 ): p 2439-2447 1993  
ISSN: 0008-543X  
Document Type: Article  
Record Type: Abstract  
Language: English

Abstract: ...In addition, the MoAb recognized cholangiocarcinomas (CC), but it did not react with hepatocellular carcinomas (HCC). Furthermore, in the combined type tumor consisting of a mixture of HCC and CC, the MoAb react only with CC element, but not with pseudoglandular structures in the HCC areas. These results indicate that FU-MK-1 is a useful antigenic marker for distinguishing HCC from CC in the liver. Furthermore, because this MoAb retains its reactivity with formalin-fixed ... embedded material, it may become a useful reagent for routine or retrospective immunohistologic studies. The molecular weight of the FU-MK-1 antigen was estimated to be ca. 41,000 dalton by the western blot analysis. Periodic acid and trypsin treatment on the antigen suggested that...

7/3,K/15 (Item 1 from file: 34) Links  
Fulltext available through: STIC Full Text Retrieval Options

SciSearch(R) Cited Ref Sci

(c) 2008 The Thomson Corp. All rights reserved.

16884775 Genuine Article#: 210DG No. References: 42

Endosomal trafficking and proprotein convertase cleavage of cis Golgi protein GP73 produces marker for hepatocellular carcinoma

Author: Bachert C; Fimmel C; Linstedt AD (REPRINT)  
Corporate Source: Carnegie Mellon Univ, Dept Biol Sci, Pittsburgh//PA/15213 (REPRINT); Carnegie Mellon Univ, Dept Biol Sci, Pittsburgh//PA/15213; Loyola Univ, Stitch Sch Med, Div Gastroenterol Hepatol & Nutr, Maywood//IL/60153

Journal: TRAFFIC, 2007, V 8, N10 (OCT), P 1415-1423

ISSN: 1398-9219 Publication date: 20071000

Publisher: BLACKWELL PUBLISHING, 9600 GARSINGTON RD, OXFORD OX4 2DQ, OXON, ENGLAND

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Endosomal trafficking and proprotein convertase cleavage of cis Golgi protein GP73 produces marker for hepatocellular carcinoma

Abstract: Serum GP73 levels are significantly increased in patients with hepatocellular carcinoma (HCC), potentially providing a marker for early detection. However, GP73 is an integral membrane protein localized to the cis Golgi... was released from cultured cells and compared with the Golgi-localized full-length protein, the molecular weight was slightly reduced, suggesting that cleavage releases the GP73 ectodomain. Sequence analysis revealed a proprotein... cleavage, resulting in GP73 secretion, and provides a molecular mechanism for its presence as a serum biomarker for HCC.

7/3,K/16 (Item 2 from file: 34) Links  
Fulltext available through: STIC Full Text Retrieval Options

SciSearch(R) Cited Ref Sci

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15942052 Genuine Article#: 119TJ No. References: 39

New multi protein patterns differentiate liver fibrosis stages and hepatocellular carcinoma in chronic hepatitis C serum samples

Author: Gobel T; Vorderwulbecke S; Hauck K; Fey H; Haussinger D; Erhardt A (REPRINT)

Corporate Source: Univ Dusseldorf, Klin Gastroenterol Hepatol & Infektiol, Moorenstr 5/D-40225 Dusseldorf//Germany/ (REPRINT); Univ Dusseldorf, Klin Gastroenterol Hepatol

HCCcarcinoma.txt

& Infektiol,D-40225 Dusseldorf//Germany/; CIPHERGEN Biosyst,D-16761  
Hennigsdorf//Germany/

Journal: WORLD JOURNAL OF GASTROENTEROLOGY , 2006 , V 12 , N47 ( DEC 21 ) , P  
7604-7612

ISSN: 1007-9327 Publication date: 20061221

Publisher: W J G PRESS , PO BOX 2345, BEIJING 100023, PEOPLES R CHINA

Language: English Document Type: ARTICLE ( ABSTRACT AVAILABLE )

Abstract: ...for detection and differentiation of liver fibrosis F1-F2), liver  
cirrhosis (F4) and hepatocellular carcinoma (HCC) in patients with chronic hepatitis  
C virus (HCV).

METHODS: Serum samples of 39 patients with F1/F2 fibrosis, 44 patients with  
F4 fibrosis, 34 patients with HCC were applied to CM10 arrays and analyzed using the  
SELDI-TOF ProteinChip System (PBS-II... ..after anion-exchange fractionation. All  
patients had chronic hepatitis C and histologically confirmed fibrosis stage/HCC.  
Data were analyzed for protein patterns by multivariate statistical techniques and  
artificial neural networks.

RESULTS: A 4 peptide/protein multimarker panel (7486, 12843, 44293 and 53598  
Da) correctly identified HCCs with a sensitivity of 100% and specificity of 85% in a  
two... ..HCV-cirrhosis versus HCVHCC training samples (AUROC 0.943). Sensitivity  
and specificity for identification of HCC were 68% and 80% for random test samples.  
Cirrhotic patients could be discriminated against patients... ..F2 fibrosis using a  
5 peptide/protein multimarker pattern (2873, 6646, 7775, 10525 and 67867 Da) with a  
specificity of 100% and a sensitivity of 85% in training samples (AUROC 0... ..a  
sensitivity and specificity of 80% and 67% for random test samples. Combination of  
the biomarker classifiers with APRI score and alfa-fetoprotein (AFP) improved the  
diagnostic performance. The 6646 Da marker protein for liver fibrosis was identified  
as apolipoprotein C-I.

CONCLUSION: SELDI-TOF-MS technology...

7/3,K/17 (Item 3 from file: 34) Links

Fulltext available through: STIC Full Text Retrieval Options

SciSearch(R) Cited Ref Sci

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15563913 Genuine Article#: 087AK No. References: 27

Overexpression of cyclase-associated protein 2 in multistage hepatocarcinogenesis

Author: Shibata R; Mori T; Du WL; Chuma M; Gotoh M; Shimazu M; Ueda M; Hirohashi S;  
Sakamoto M (REPRINT)

Corporate Source: Keio Univ,Sch Med, Dept Pathol, Shinjuku Ku,35 Shinanomachi/Tokyo  
1608582//Japan/ (REPRINT); Keio Univ,Sch Med, Dept Pathol, Shinjuku Ku,Tokyo

1608582//Japan/; Keio Univ,Sch Med, Div Diagnost Pathol,Tokyo 1608582//Japan/; Keio  
Univ,Sch Med, Dept Surg,Tokyo 1608582//Japan/; Natl Canc Ctr,Res Inst, Div  
Pathol,Tokyo 104//Japan/ ( msakamot@sc.itc.keio.ac.jp )

Journal: CLINICAL CANCER RESEARCH , 2006 , V 12 , N18 ( SEP 15 ) , P 5363-5368

ISSN: 1078-0432 Publication date: 20060915

Publisher: AMER ASSOC CANCER RESEARCH , 615 CHESTNUT ST, 17TH FLOOR, PHILADELPHIA,  
PA 19106-4404 USA

Language: English Document Type: ARTICLE ( ABSTRACT AVAILABLE )

Abstract: Purpose: Hepatocellular carcinoma (HCC) associated with chronic liver  
disease is known to show an obvious multistage process of tumor progression. We  
previously identified heat shock protein 70 as a molecular marker of early HCC  
during investigation of expression profiling in multistage hepatocarcinogenesis. In  
this report, we examined cyclase-associated protein 2 (CAP2), which is also listed  
as an up-regulated gene in early HCC.

Experimental Design: We measured the level of CAP2 mRNA by real-time  
quantitative PCR. We... ..antibody against CAP2 and we confirmed the expression of  
CAP2 by immunoblotting and immunohistochemistry in HCC cell lines and HCC tissues.

HCCcarcinoma.txt

Results: According to real-time quantitative PCR, the level of CAP2 mRNA was up-regulated in early HCC when compared with noncancerous liver tissue, and it was further up-regulated in progressed HCC. We raised a polyclonal antibody against CAP2, which showed a single 53-kDa band of strong intensity in the human HCC cell lines and HCC tissues but only a weak band in the noncancerous liver tissues in Western blot analysis. Immunohistochemical examination of CAP2 revealed its significant overexpression in early HCC when compared with noncancerous and precancerous lesions and in progressed HCC when compared with early HCC.

Conclusion: Our findings show that CAP2 is up-regulated in HCC when compared with noncancerous and precancerous lesions. This is the first report that proves that...

7/3,K/18 (Item 4 from file: 34) Links

Fulltext available through: STIC Full Text Retrieval Options  
SciSearch(R) Cited Ref Sci

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14828876 Genuine Article#: 010JF No. References: 25

Changes in the serum proteome associated with the development of hepatocellular carcinoma in hepatitis C-related cirrhosis

Author: Ward DG; Cheng Y; N'kontchou G; Thar TT; Barget N; Wei W; Billingham LJ; Martin A; Beaugrand M; Johnson PJ (REPRINT)  
Corporate Source: Univ Birmingham, Sch Med, Canc Res UK Inst Canc Studies, Birmingham B15 2TT/W Midlands/England/ (REPRINT); Univ Birmingham, Sch Med, Canc Res UK Inst Canc Studies, Birmingham B15 2TT/W Midlands/England/; Univ Paris 13, UFR SMBH, UPRES EA 3409, Hepatogastroenterol & Pathol Dept, Assistance Publ Hosp, Bondy//France/ (p.johnson@bham.ac.uk)

Journal: BRITISH JOURNAL OF CANCER, 2006, V 94, N2 (JAN 30), P 287-292

ISSN: 0007-0920 Publication date: 20060130

Publisher: NATURE PUBLISHING GROUP, MACMILLAN BUILDING, 4 CRINAN ST, LONDON N1 9XW, ENGLAND

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Abstract: Early diagnosis of hepatocellular carcinoma (HCC) is the key to the delivery of effective therapies. The conventional serological diagnostic test, estimation... to complement ultrasound scanning, the major modality for surveillance of groups at high risk of HCC. We have analysed the serum proteome of 182 patients with hepatitis C-induced liver cirrhosis (77 with HCC) by surface-enhanced laser desorption/ionisation time-of-flight mass spectrometry (SELDI). The patients were split into a training set (84 non-HCC, 60 HCC) and a 'blind' test set (21 non-HCC, 17 HCC). Neural networks developed on the training set were able to classify the blind test set... and 86% specificity (95% CI 65 - 95%). Two of the SELDI peaks (23/23.5 kDa) were elevated by an average of 50% in the serum of HCC patients ( $P < 0.001$ ) and were identified as kappa and lambda immunoglobulin light chains. This... identification of several individual proteins, which, in combination, may offer a novel way to diagnose HCC.

Identifiers-- ...ARTIFICIAL NEURAL-NETWORKS; CANCER; DISCOVERY; IDENTIFICATION; BIOMARKERS; MARKER; STAGE

7/3,K/19 (Item 5 from file: 34) Links

Fulltext available through: STIC Full Text Retrieval Options  
SciSearch(R) Cited Ref Sci

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12700424 Genuine Article#: 811HV No. References: 33

Proteomic analysis of cholangiocarcinoma cell line

Author: Srisomsap C; Sawangareetrakul P; Subhasitanont P; Panichakul T; Keeratichamroen S; Lirdprapamongkol K; Chokchaichamnankit D; Sirisinha S; Svasti J (REPRINT)

Corporate Source: Chulabhorn Res Inst, Biochem Lab, Vibhavadee Rangsit Rd/Bangkok 10210//Thailand/ (REPRINT); Chulabhorn Res Inst, Biochem Lab, Bangkok

HCCcarcinoma.txt

10210//Thailand/; Chulabhorn Res Inst, Immunol Lab, Bangkok 10210//Thailand/; Mahidol Univ, Dept Microbiol, Bangkok 10700//Thailand/; Mahidol Univ, Dept Biochem, Bangkok 10700//Thailand/

Journal: PROTEOMICS , 2004 , V 4 , N4 ( APR ) , P 1135-1144

ISSN: 1615-9853 Publication date: 20040400

Publisher: WILEY-V C H VERLAG GMBH , PO BOX 10 11 61, D-69451 WEINHEIM, GERMANY

Language: English Document Type: ARTICLE ( ABSTRACT AVAILABLE )

Abstract: ...with a higher incidence in tropical countries, such as Thailand.

Distinguishing CCA from hepatocellular carcinoma (HCC) of the liver often requires the use of histochemistry, so molecular markers for diagnosis and... cell line (HuCCA-1) has been compared to human hepatocellular carcinoma cell lines (HepG2 and HCC-S102) and a human breast epithelial cancer cell line (MCF-7). Our results show that... MS (ESI-MS/MS). Cytokeratins CK8 and CK18 were overexpressed in both HuCCA-1 and HCC, while CK7 and CK19 were only expressed in HuCCA-1. Four specific proteins with MW... U2 showed high expression in HuCCA-1, while U1 and U4 showed high expression in HCC-S102. U2 could be separated in 2 proteins, U2/1 (alpha-enolase) and U2/2... HuCCA-1 by 1-DE immunodetection, and gave only one spot with MW 32.9 kDa and p/8.29 on 2-DE immunoblotting, Thus, certain proteins, namely CK7, CK19, U2...

7/3,K/20 (Item 6 from file: 34) Links

SciSearch(R) Cited Ref Sci

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01121042 Genuine Article#: FX644 No. References: 13

HEPATOCARCINOMA IN CIRRHOSIS - IS ANTITHROMBIN-III A NEOPLASTIC MARKER

Author: GRIECO A; DESTEFANO V; CASSANO A; CIABATTONI A; GARUFI C; ASTONE A; LEONE G ; BARONE C

Corporate Source: POLICLIN UNIV A GEMELLI, IST CLIN MED GEN, LARGO GEMELLI 8/I-00168 ROME//ITALY/; CATHOLIC UNIV SACRED HEART, FAC MED A GEMELLI, IST SEMELOT MED, IST CLIN MED GEN/I-00168 ROME//ITALY/

Journal: DIGESTIVE DISEASES AND SCIENCES , 1991 , V 36 , N7 , P 990-992

Language: ENGLISH Document Type: ARTICLE ( Abstract Available )

HEPATOCARCINOMA IN CIRRHOSIS - IS ANTITHROMBIN-III A NEOPLASTIC MARKER

Abstract: It has been reported that hepatoma (HCC) cells produce abnormal proteins such as erythropoietin, fibrinogen, prothrombin, and, recently, antithrombin III (AT III). In a preliminary report, we reported increased AT III levels in patients bearing HCC independent of their clinical liver status. The present study was performed to assess antithrombin III ... disease. In 70 well-matched patient (47 with cirrhosis and 23 with cirrhosis and proven HCC) serum total cholesterol, albumin, prothrombin, alkaline phosphatase, AFP, aminotransferases, and AT III were determined. Together with AFP and alkaline phosphatase, patients with HCC had higher values of AT III (88 +/- 7%) and total cholesterol (184 +/- 17 mg/100... .001). No difference was observed between these two groups for albumin, prothrombin, and aminotransferases. In HCC patients, AT III levels were related to the total cholesterol level ( $R^2 = 0.317$ ), whereas... patients it correlated with the prothrombin level ( $R^2 = 0.274$ ). These data suggest that in HCC patients a greater rate of synthesis of AT III occurs, whereas in cirrhotic patients lower...

Research Fronts: 89-0071 001 (LOW-MOLECULAR WEIGHT HEPARIN; VENOUS THROMBOSIS; FAMILIAL ANTITHROMBIN-III DEFICIENCY; FIBRINOLYTIC SYSTEM; ACUTE MYOCARDIAL-INFARCTION; HOMOZYGOUS VARIANT)

7/3,K/21 (Item 1 from file: 45) Links

Fulltext available through: STIC Full Text Retrieval Options

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01951531 EMCare No: 44268169

Global proteomic analysis of microdissected cirrhotic nodules reveals significant biomarkers associated with clonal expansion

Guedj N.; Dargere D.; Degos F.; Janneau J.L.; Vidaud D.; Belghiti J.; Bedossa P.;

Paradis V.

Dr. V. Paradis, Service d'Anatomie Pathologique, Hopital Beaujon, 110 bd du Gen. Leclerc, 92118 Clichy Cedex France

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Laboratory Investigation ( LAB. INVEST. ) ( United Kingdom ) 05 SEP 2006 , 86/9 (951-958)

CODEN: LAINA ISSN: 0023-6837 eISSN: 1530-0307

PUBLISHER ITEM IDENTIFIER: 3700450

DOCUMENT TYPE: Journal ; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 33

RECORD TYPE: Abstract

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...tissue composed of polyclonal regenerative and monoclonal neoplastic, potentially malignant nodules from which hepatocellular carcinoma ( HCC) might develop. The aim of this study was to investigate proteomic profile changes associated with... ..malignant transformation of monoclonal nodules. Seventy-one cirrhotic nodules from 10 female patients with six HCC were dissected from liver surgical specimen by laser capture microdissection. Clonal status of each nodule... ..surface-enhanced laser desorption ionisation-time-of-flight technology using Q10 arrays (CypherGen ProteinChip(R). Molecular weight of differentially expressed protein peaks was assessed. An average of 50 protein peaks was obtained... ..n=26) identified three differentially expressed protein peaks (10 092, 54 025 and 62 133 Da). All were upregulated in monoclonal nodules. Twelve peaks were differentially expressed between monoclonal nodules and HCC with nine proteins upregulated in cancer samples. This study confirms that proteome analysis can be...

DESCRIPTORS:

\* liver nodule; \*liver cirrhosis; \*biological marker

...capture microdissection; X chromosome inactivation; surface enhanced laser desorption ionization time of flight mass spectrometry; molecular weight; upregulation; cancer; sample; malignant transformation; human; female; clinical article; human tissue; aged; adult; article; priority...

7/3,K/22 (Item 2 from file: 45) Links

Fulltext available through: STIC Full Text Retrieval Options

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01161253 EMCare No: 35332910

Differential expression of beta-galactoside alpha2,6 sialyltransferase and sialoglycans in normal and cirrhotic liver and hepatocellular carcinoma

Cao Y.; Merling A.; Crocker P.R.; Keller R.; Schwartz-Albiez R.

Dr. R. Schwartz-Albiez, Division of Cellular Immunology, German Cancer Research Centre, Im Neuenheimer Feld 280, D-69120 Heidelberg Germany

AUTHOR EMAIL: r.s-albiez@dkfz.de

Laboratory Investigation ( LAB. INVEST. ) ( United States ) 01 NOV 2002 , 82/11 (1515-1524)

CODEN: LAINA ISSN: 0023-6837

DOCUMENT TYPE: Journal ; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 43

RECORD TYPE: Abstract

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...alpha2,6 sialyltransferase (ST6Gal I) and sialoglycans in normal liver, cirrhotic liver, and hepatocellular carcinoma (HCC) using a new ST6Gal I-specific mAb and recombinant fusion proteins of CD22 and sialoadhesin... ..in Kupffer cells, bile ducts, endothelial cells, and oval cells. Well-differentiated and moderately differentiated HCC showed Golgi and diffuse cytoplasmic staining of ST6Gal I and



HCCcarcinoma.txt

sialoglycans, whereas the cytoplasmic staining for ST6Gal I and sialoglycans was decreased or even absent in poorly differentiated HCC. Detection of sialoglycans by the recombinant fusion proteins in western blots of cell lysates derived from cell lines revealed two major double bands of sialoglycoproteins at 65 and 120 kDa for hepatocytes, three major bands at 54, 49, and 44 kDa for colonic epithelial cells, and one band at 60 kDa for endothelial cells. Our results describe the expression patterns of ST6Gal I and sialoglycans in...

DESCRIPTORS:

hybrid protein; sialoglycoprotein; sialoadhesin; plasma protein; unclassified drug; cell enzyme; enzyme; marker; antigen; liver cell; intrahepatic bile duct; endothelium cell; staining; cell differentiation; bile duct; human cell...  
...journal; liver cirrhosis; protein localization; rat; controlled study; cell line; protein expression; enzyme activity; disease marker; cell lysate; colon mucosa; liver disease; immunohistology; epithelium cell; animal cell

7/3,K/23 (Item 1 from file: 73) Links

Fulltext available through: STIC Full Text Retrieval Options

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0082103458 EMBASE No: 2007548023

Using protein chip technology to screen for tissue proteomic profiles and tumor markers in hepatocellular carcinoma

Li D.; Zhang J.-Z.; Zheng Y.-H. // Ji X.-L.; Shu Q.-M.; Fan L.-N. // You H. // Li X.-C. // Zhang J.-Z.

Department of Pathology, 306 Hospital of Chinese PLA, Beijing 100101, China // Department of Pathology, General Hospital of Armed Police Force of Chinese PLA, Beijing 100080, China // Research Center of Liver Disease, Beijing Friendship Hospital, Beijing 100053, China // Department of Sergeant, Academy of Equipment Command and Technology of Chinese PLA, Beijing 102249, China // Department of Pathology, 306 Hospital of Chinese PLA, 9 Anxiang North Road, Beijing 100101, China  
Author email: zhangjz55@sina.com; zhangjz55@sina.com

Corresp. Author: Zhang J.-Z.

Corresp. Author Affil: Department of Pathology, 306 Hospital of Chinese PLA, 9 Anxiang North Road, Beijing 100101, China

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World Chinese Journal of Digestology ( world chin. j. Dig. ) ( China ) August 1, 2007 , 15/22 (2424-2430)

CODEN: SHXZF ISSN: 10093079

Document Type: Journal ; Article Record Type: Abstract

Language: Chinese Summary language: English; Chinese

Number of References: 32

...spectrometry (SELDI-TOF-MS) technique to screen for tissue biomarkers in patients with hepatocellular carcinoma (HCC), but with different clinicopathological features. METHODS: Proteomic spectra were examined and analyzed by mass spectroscopy in 44 cases, including 26 specimens of HCC tissue that had been pathologically confirmed in patients aged 34-68 years, and 18 specimens... ..cirrhosis tissue in patients aged 38-70 years. The spectra obtained were analyzed using the biomarker wizard system, and the biomarkers were defined by searching www.ExPasy.org. RESULTS: A total... ..16 distinguished proteomic biomarkers, 7 up-regulated and 9 down-regulated, were detected from screening HCC tissue, in contrast with liver cirrhosis tissue. There were significant differences in the protein peaks of different molecular masses of 4.7, 7.2 and 9.8 kDa between HCC and liver cirrhosis tissues. Eleven distinguished proteomic biomarkers were screened when comparing cases of moderately and highly differentiated HCC tissue. All proteins were confirmed by searches of www.ExPasy.org. CONCLUSION: The SELDI-TOF-MS technique offers a unique platform for proteomic detection in HCC. It is also a non-invasive method for studying proteomic changes in the development and progression of HCC.

Drug Descriptors:

tumor marker

7/3,K/24 (Item 2 from file: 73) Links

Fulltext available through: STIC Full Text Retrieval Options

EMBASE

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0082012034 EMBASE No: 2007451057

Artificial neural networks and decision tree model analysis of liver cancer proteomes

Luk J.M.; Lam B.Y.; Lee N.P.Y.; Ho D.W.; Chen L.; Fan S.-T. // Sham P.C. // Chen L.; Peng J.; Leng X. // Day P.J.

Department of Surgery, Center for Cancer Research, University of Hong Kong, 21 Sassoon Road, Pokfulam, Hong Kong // Genome Research Centre, Department of Psychiatry, University of Hong Kong, Pokfulam, Hong Kong // Department of Surgery, People's Hospital, Peking University, Beijing; China // The Manchester Interdisciplinary Biocentre, University of Manchester, Manchester, United Kingdom

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Biochemical and Biophysical Research Communications ( Biochem. Biophys. Res. Commun. ) ( United States ) September 14, 2007 , 361/1 (68-73)

CODEN: BBRC ISSN: 0006291X eISSN: 10902104

Publisher Item Identifier: S0006291X07014003

Item Identifier (DOI): 10.1016/j.bbrc.2007.06.172

Document Type: Journal ; Article Record Type: Abstract

Language: English Summary language: English

Number of References: 25

Hepatocellular carcinoma (HCC) is a heterogeneous cancer and usually diagnosed at late advanced tumor stages of high lethality. The present study attempted to obtain a proteome-wide analysis of HCC in comparison with adjacent non-tumor liver tissues, in order to facilitate biomarkers' discovery and to investigate the mechanisms of HCC development. A cohort of 66 Chinese patients with HCC was included for proteomic profiling study by two-dimensional gel electrophoresis (2-DE) analysis.

Artificial... employed to analyze the profiling data and to delineate significant patterns and trends for discriminating HCC from non-malignant liver tissues. Protein markers were identified by tandem MS/MS. A total... each with 230 consolidated protein expression intensities. Both the data-mining algorithms successfully distinguished the HCC phenotype from other non-malignant liver samples. The detection sensitivity and specificity of ANN were... three biological classifiers in the CART model were identified as cytochrome b5, heat shock 70 kDa protein 8 isoform 2, and cathepsin B. The 2-DE-based proteomic profiling approach combined with the ANN or CART algorithm yielded satisfactory performance on identifying HCC and revealed potential candidate cancer biomarkers. (c) 2007 Elsevier Inc. All rights reserved.

Drug Descriptors:

biological marker--endogenous compound--ec; cathepsin B--endogenous compound--ec; cytochrome b5--endogenous compound--ec; heat shock...

7/3,K/25 (Item 3 from file: 73) Links

Fulltext available through: STIC Full Text Retrieval Options

EMBASE

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0081549702 EMBASE No: 2006613339

Application of surface enhanced laser desorption ionization time-of-flight mass spectrometry technology in the diagnosis of hepatocellular carcinoma

Tian Z.-B.; Kong X.-J.; Zhang C.-P. // Liu H. // Sun G.-R. // Wang B. // Tian

Z.-B.

Department of Gastroenterology, Affiliated Hospital of Qingdao University Medical College, Qingdao 266003, Shandong Province, China // Department of Endoscopy, Affiliated Hospital of Qingdao University Medical College, Qingdao 266003, Shandong Province, China // Clinical Immunologic Center, Affiliated Hospital of Qingdao University Medical College, Qingdao 266003, Shandong Province, China // Department of Microbiology, Qingdao University Medical College, Qingdao 266021, Shandong Province, China // Department of Gastroenterology, Affiliated Hospital of Medical College Qingdao University, 16 Jiangsu Road, Qingdao 266003, Shandong Province, China

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World Chinese Journal of Digestology ( world Chin. J. Dig. ) ( China ) September 1, 2006 , 14/25 (2499-2503)

CODEN: SHXZF ISSN: 10093079

Document Type: Journal ; Article Record Type: Abstract

Language: Chinese Summary language: English; Chinese

Number of References: 11

AIM: To explore tumor markers for the diagnosis of hepatocellular carcinoma (HCC) through detecting the serum protein spectrum differently expressed between hepatitis B virus (HBV) carriers and HCC patients. METHODS: We detected the serum protein spectrum in 27 HCC patients, 27 HBV carriers and 25 healthy controls using surface enhanced laser desorption ionization time... ..TOF-MS) technique, and the diagnosis model was established through analyzing the detected data by biomarker patterns software (BPS) 5.0. RESULTS: The protein peaks, which could discriminate HBV carriers from HCC patients and healthy individuals, as well as healthy individuals from HCC patients, were detected. A diagnosis model based on the detected data was established with the... ..of 93%, 96%, 84%, and sensitivity of 85%, 96%, 89%, respectively. In addition, the 8141-Da protein in HCC patients had a higher expression than that in HBV carriers ( $P < 10^{-5}$ ); the expression of 3448-Da protein was higher both in HCC patients and HBV carriers than that in healthy controls ( $P < 10^{-5}$ ), but it had no significant difference between HCC patients and HBV carriers ( $P > 0.05$ ), indicating that 3448-Da protein might be a potential marker for HBV infection; 7771-Da protein was differently expressed between the three groups of patients. CONCLUSION: With a high specificity... ..quickly by SELDI-TOF-MS technique, which provides a serological way for the diagnosis of HCC. Drug Descriptors: plasma protein--endogenous compound--ec; tumor marker--endogenous compound--ec

7/3,K/26 (Item 4 from file: 73) Links

Fulltext available through: STIC Full Text Retrieval Options

EMBASE

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0081416312 EMBASE No: 2006479235

Establishment of serum protein pattern model for screening hepatocellular carcinoma by surface-enhanced laser desorption/ionization time-of-flight mass spectrometry

Liu C.-B.; Pan C.-Q.; Sun L.-F. // Liu C.-B.

Taizhou Municipal Hospital, Taizhou 318000, Zhejiang Province, China // Taizhou Municipal Hospital, 381 Zhongshan Rd., Jiaojiang Dist., Taizhou 318000, Zhejiang Province, China

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World Chinese Journal of Digestology ( world chin. j. Dig. ) ( China ) August 1, 2006 , 14/23 (2354-2357)

CODEN: SHXZF ISSN: 10093079

Document Type: Journal ; Article Record Type: Abstract

Language: Chinese Summary language: English; Chinese

Number of References: 7

...spectrometry (SELDI-TOF-MS) on WCX2 chips. The collected data were compared and analyzed by Biomarker Wizard software. RESULTS: A group of proteomic peaks were detected. The expression of five protein molecules (4477, 8943, 5181, 8617, 13 761 Da) in patients with hepatic cellular carcinoma was significantly higher than those in the controls, and the expression of 4477- and 13 761-Da proteins were higher while the 4097-Da one was lower in HCC patients than cirrhosis ones. The specificity and sensitivity of SELDI-TOF-MS were 100% (60/60) and 90% (18/20), respectively. Four protein molecules (4477, 8943, 13 761, 4097 Da) were screened as a proteomic model. CONCLUSION: The discovered serum protein pattern model can efficiently...

7/3,K/27 (Item 5 from file: 73) Links

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0075922659 EMBASE No: 1994352496

Expression of peroxisomal enoyl-CoA hydratase/3-hydroxyacyl-CoA dehydrogenase enzyme and its mRNA in peroxisome proliferator-induced liver tumors

Rao M.S.; Ide H.; Yeldandi A.V.; Kumar S.; Reddy J.K.

Department of Pathology, NW University Medical School, 303 East Chicago Avenue, Chicago, IL 60611, United States

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Carcinogenesis ( CARCINOGENESIS ) ( United Kingdom ) November 1, 1994 , 15/11 (2619-2622)

CODEN: CRNGD ISSN: 01433334

Document Type: Journal ; Article Record Type: Abstract

Language: English Summary language: English

Number of References: 27

...to the adjacent non-neoplastic liver. SDS-polyacrylamide gel electrophoresis of postnuclear fractions of six HCC and adjacent liver tissue showed a marked increase in an 80 kDa polypeptide. Immunoblot and Northern blot analysis showed a marked increase in PBE enzyme and PBE mRNA respectively in HCC and adjacent non-neoplastic liver tissue. In control livers (animals not treated with peroxisome proliferators...

Drug Descriptors:

antibody; ciprofibrate; prasterone; tumor marker

7/3,K/28 (Item 6 from file: 73) Links

Fulltext available through: STIC Full Text Retrieval Options

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0074563256 EMBASE No: 1991068756

A pulmonary large cell carcinoma cell line expressing neuroendocrine cell markers and human chorionic gonadotropin alpha-subunit

Kasai K.; Kameya T.; Kadoya K.; Wada C.

Department of Pathology, Kitasato University, School of Medicine, Kitasato 1-15-1, Sagamihara 228, Japan

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Japanese Journal of Cancer Research ( JPN. J. CANCER RES. ) ( Japan ) March 7, 1991 , 82/1 (12-18)

CODEN: JJCRE ISSN: 09105050

Document Type: Journal ; Article Record Type: Abstract

Language: English Summary language: English

...protein of neuroendocrine cells but did not possess either most epithelial markers other than low-molecular-weight keratin (Cytokeratin ) or neuron-specific enolase. The KTA7 cells, by immunostaining with anti-hCC subunit antibodies, were shown to produce hCG alpha- but not beta-subunit. Northern blot analysis... ...the pathobiology of large cell-type neuroendocrine tumors since it expresses at the same time marker substances of neuroendocrine differentiation and the hCG alpha-subunit.

7/3,k/29 (Item 1 from file: 144) Links

Pascal

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15962183 PASCAL No.: 03-0105753

Expression of p33 SUP I SUP N SUP G SUP 1 in hepatocellular carcinoma: Relationships to tumour differentiation and cyclin E kinase activity

OHGI T; MASAKI T; NAKAI S; MORISHITA A; YUKIMASA S; NAGAI M; MIYAUCHI Y; FUNAKI T; KUROKOHCHI K; WATANABE S; KURIYAMA S

Third and First Depts. of Internal Medicine, Kagawa Medical University, Miki-cho, Kita-gun, Kagawa, Japan

Journal: Scandinavian journal of gastroenterology

, 2002, 37 (12

) 1440-1448

Language: English

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... 1 (ING1) is a new candidate for the tumour suppressor gene that encodes a 33k Da protein (p33 SUP I SUP N SUP G SUP 1 ). while reduction of p33 SUP...

... expression of p33 SUP I SUP N SUP G SUP 1 in human hepatocellular carcinoma (HCC) remains to be examined. We evaluated p33 SUP I SUP N SUP G SUP 1 expression in various liver diseases including HCC.

Methods: Expression of p33 SUP I SUP N SUP G SUP 1 was evaluated immunohistochemically...

... the normal liver (n = 5), hut also in specimens of chronic hepatitis (n = 39) and HCC (n = 86). We also analysed the relationship between p33 SUP I SUP N SUP G...

...Results: Expression of p33 SUP I SUP N SUP G SUP 1 was reduced in HCC , especially in moderately and poorly differentiated HCCs, and those at advanced stages. Furthermore, expression of...

... G SUP 1 may contribute to the process of malignant transformation, progression and dedifferentiation of HCC via an increase of cyclin E kinase activity.

English Descriptors: Hepatocellular carcinoma; Tumoral marker; Tumor suppressor gene; Tumor progression; Mechanism of action; Increase; Enzymatic activity; Cyclin E; Kinase; Cell...

7/3,K/30 (Item 2 from file: 144) Links  
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15778005 PASCAL No.: 02-0491582

Cloning and characterization of a novel 90 kDa 'companion'  
auto-antigen of p62 overexpressed in cancer

SOO HOO Linda; ZHANG Jianying Y; CHAN Edward K L  
WM Keck Autoimmune Disease Center and DNA Core Laboratory for Structural  
Analysis, Department of Molecular and Experimental Medicine, The Scripps  
Research Institute, 10550 North Torrey Pines Road, La Jolla, California, CA  
92037, United States

Journal: Oncogene : (Basingstoke),  
2002, 21 (32)  
5006-5015

Language: English

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Cloning and characterization of a novel 90 kDa 'companion'  
auto-antigen of p62 overexpressed in cancer

... II mRNA. p62 was initially shown to be recognized by auto-antibodies  
in hepatocellular carcinoma (HCC) but now anti-p62 has been  
described in diverse malignancies. p62 is uniformly expressed in fetal  
liver and prominently in 33% of HCC nodules, but not detectable in  
adult liver or normal tissue adjacent to HCC nodules. In this study,  
a 90 kDa protein (p90), auto-antibodies to which were found  
associated with anti-p62 responses in the same HCC patient group,  
was identified by cDNA expression cloning. Indirect immunofluorescence  
showed that, like p62, p90...

... anti-p62, anti-Koc, and anti-CENP-F, auto-antibodies to p90 represent a  
new marker for tumors such as HCC and gastric cancer. Our  
data support the working hypothesis that auto-antibody production in cancer  
...

7/3,K/31 (Item 1 from file: 135) Links  
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0000668683 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Researchers from Carnegie Mellon University, Department of Biological  
Sciences detail findings in hepatocellular cancer

Cancer Weekly, October 30, 2007, p.538

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
359

...TEXT: A new study, 'Endosomal trafficking and proprotein convertase cleavage of cis golgi protein GP73 produces marker for hepatocellular carcinoma,' is now available (see also ). According to a study from the United States, "'Serum GP73 levels are significantly increased in patients with hepatocellular carcinoma (HCC), potentially providing a marker for early detection. However, GP73 is an integral membrane protein localized to the cis Golgi...

...was released from cultured cells and compared with the Golgi-localized full-length protein, the molecular weight was slightly reduced, suggesting that cleavage releases the GP73 ectodomain. Sequence analysis revealed a proprotein...

...cleavage, resulting in GP73 secretion, and provides a molecular mechanism for its presence as a serum biomarker for HCC." Bachert and colleagues published the results of their research in

Traffic (Endosomal trafficking and proprotein convertase cleavage of cis golgi protein GP73 produces marker for hepatocellular carcinoma. Traffic , 2007;8(10):1415-23). For additional information, contact C. Bachert...

7/3,k/32 (Item 2 from file: 135) Links  
NewsRx Weekly Reports  
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0000553015 (USE FORMAT 7 OR 9 FOR FULLTEXT)

National Taiwan University, Taiwan, scientists detail new medical studies and findings

Pharma Business Week, June 25, 2007, p.2637

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1097

... C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC). "Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University. "We performed SELDI-TOF MS to identify differentially expressed proteins in HCC serum using weak cation exchange protein chips. Protein characterization was performed by 2-DE separation and nano flow LC-MS/MS. A total of 55 sera were collected from HCC patients and compared with those from 48 patients with chronic hepatitis and 9 healthy individuals. "A

HCCcarcinoma.txt

candidate marker of about 8900 Da was detected as differentially expressed in patients with chronic hepatitis C and HCV related HCC. We identified this differentially expressed protein as complement C3a," the authors reported. "The expression of C3a in HCC sera was further validated by PS20 chip immunoassay and Western blotting. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC," the scientists observed. They concluded, "The combination of SELDI-TOF MS and 2-DE provides...

...Lee and colleagues published their study in Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

7/3,K/33 (Item 3 from file: 135) Links  
NewsRx Weekly Reports  
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0000544063 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Results of recent studies reported by University of Toronto, Canada

Science Letter, June 12, 2007, p.3027

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1254

...TEXT: cancer. "Tumor recurrence remains the major cause of death after curative resection for hepatocellular carcinoma (HCC). The purpose of this study was to identify risk factors for the recurrence of HCC and to examine long-term outcomes after resection," scientists in Toronto, Canada report. "From July...

...2004, 193 consecutive patients who underwent hepatic resection as primary therapy with curative intent for HCC were included in this single-center analysis. The perioperative mortality rate was 5%. Time to...

...Despite recurrences in >50% of patients, long-term survival can be achieved after resection of HCC," wrote S.A. Shah and colleagues, University of Toronto, Department of Surgery. The researchers concluded...

... Avenue, Toronto, ON M4N 3M5, Canada. Study 3: The Mycobacterium marinum early secretory antigenic 6 kDa/culture filtrate protein 10 secretion system modulates phagosome maturation. "Virulence of Mycobacterium tuberculosis and related pathogenic mycobacteria requires the secretion of early secretory antigenic 6 kDa (ESAT-6) and culture filtrate protein 10 (CFP-10), two small proteins that lack traditional...

...were analyzed in infected macrophages by confocal and electron microscopy using the late endosome/lysosome marker LAMP-1, along with various fluid-phase markers such as rhodamine-dextran and ferritin and ...



7/3,k/34 (Item 4 from file: 135) Links  
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0000527462 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Researchers' work from National Taiwan University, Taiwan, adds to body of knowledge

Life Science Weekly, May 22, 2007, p.5019

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1074

...TEXT: 100 ms or longer 6 h postresuscitation predicts poor survival outcomes and serves as a marker of poor prognosis." Chang and colleagues published their study in Intensive Care Medicine (Postresuscitation myocardial...  
... C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC). "Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University. "We performed SELDI-TOF MS to identify differentially expressed proteins in HCC serum using weak cation exchange protein chips. Protein characterization was performed by 2-DE separation and nano flow LC-MS/MS. A total of 55 sera were collected from HCC patients and compared with those from 48 patients with chronic hepatitis and 9 healthy individuals. "A candidate marker of about 8900 Da was detected as differentially expressed in patients with chronic hepatitis C and HCV related HCC. We identified this differentially expressed protein as complement C3a," the authors reported. "The expression of C3a in HCC sera was further validated by PS20 chip immunoassay and western blotting. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC," the scientists observed. They concluded, "The combination of SELDI-TOF MS and 2-DE provides...

...Lee and colleagues published their study in Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

7/3,k/35 (Item 5 from file: 135) Links  
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0000504046 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Recent studies involving Keio University, Japan, highlighted

Pharma Business Week, April 23, 2007, p.2613

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1219

...TEXT: in multistage hepatocarcinogenesis," are detailed in a study published in Clinical Cancer Research. "Hepatocellular carcinoma (HCC) associated with chronic liver disease is known to show an obvious multistage process of tumor progression. We previously identified heat shock protein 70 as a molecular marker of early HCC during investigation of expression profiling in multistage hepatocarcinogenesis," scientists writing in the journal Clinical Cancer...

...associated protein 2 (CAP2), which is also listed as an up-regulated gene in early HCC. We measured the level of CAP2 mRNA by real-time quantitative PCR. We raised a...

...antibody against CAP2 and we confirmed the expression of CAP2 by immunoblotting and immunohistochemistry in HCC cell lines and HCC tissues. According to real-time quantitative PCR, the level of CAP2 mRNA was up-regulated in early HCC when compared with noncancerous liver tissue, and it was further up-regulated in progressed HCC. We raised a polyclonal antibody against CAP2, which showed a single 53-kDa band of strong intensity in the human HCC cell lines and HCC tissues but only a weak band in the noncancerous liver tissues in western blot analysis. Immunohistochemical examination of CAP2 revealed its significant overexpression in early HCC when compared with noncancerous and precancerous lesions and in progressed HCC when compared with early HCC. Our findings show that CAP2 is up-regulated in HCC when compared with noncancerous and precancerous lesions," wrote R. Shibata and colleagues, Keio University, National...

7/3,K/36 (Item 6 from file: 135) Links  
NewsRx Weekly Reports  
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0000493315 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Studies from National Taiwan University, Taiwan, highlight most recent findings

Life Science Weekly, April 10, 2007, p.4318

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1118

HCCcarcinoma.txt

...TEXT: received surgical resection," is now available. According to a study from Taipei, Taiwan, "Hepatocellular carcinoma (HCC) is one of the most common malignancies in the world. As the prognosis for HCC patients is poor, the quality of life (QOL) is becoming more important on the outcome assessments." "The aim of this study was to evaluate QOL in HCC patients. A total of 161 patients with HCC were enrolled at a university hospital. Most of these patients received surgical resections. They were...

...WHOQOL-BREF, EORTC QLQ-C30, and utility measures. The WHOQOL-BREF domain scores for the HCC patients were compared to healthy normative Taiwan population, using general linear models controlling for gender...

...explore association between a better QOL and clinical/sociodemographic variables. Compared with healthy people, the HCC patients had reduced QOL in physical domains, but better environmental QOL. After controlling gender, age, education, and employment, duration of HCC more than 1 year was associated with better QOL scores. WHOQOL-BREF could be cross-validated with EORTC QLQ-C30. Survival over 1 year was associated with better QOL in HCC patients," wrote L.J. Lee and colleagues, National Taiwan University. The researchers concluded: "WHOQOL-BREF could be a valid QOL instrument for the assessments of QOL in HCC patients." Lee and colleagues published the results of their research in the Journal of Surgical...

...C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC). "Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University. "We performed SELDI-TOF MS to identify differentially expressed proteins in HCC serum using weak cation exchange protein chips. Protein characterization was performed by 2-DE separation and nano flow LC-MS/MS. A total of 55 sera were collected from HCC patients and compared with those from 48 patients with chronic hepatitis and 9 healthy individuals. "A candidate marker of about 8900 Da was detected as differentially expressed in patients with chronic hepatitis C and HCV related HCC. We identified this differentially expressed protein as complement C3a," the authors reported. "The expression of C3a in HCC sera was further validated by PS20 chip immunoassay and western blotting. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC," the scientists observed. They concluded, "The combination of SELDI-TOF MS and 2-DE provides...

n Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

7/3,K/37 (Item 7 from file: 135) Links  
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0000466630 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Research by Kanazawa University, Japan, advances understanding of human health

Pharma Business Week, March 12, 2007, p.1779  
Page 68

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1053

Study 1: Researchers detail in "Identification of a novel autoantibody reactive with 155 and 140 kDa nuclear proteins in patients with dermatomyositis: an association with malignancy," new data in systemic sclerosis...

...polymyositis (PM). In this study, we identified a novel MSA reactive with 155 and 140 kDa nuclear proteins [anti-155/140 antibody (Ab)] and determined the clinical feature of DM patients...

...immunofluorescence staining. Seven of the 52 (13%) Japanese patients with DM immunoprecipitated 155 and 140 kDa proteins from 35S-labelled K562 leukaemia cell extract. No patients with SLE, systemic sclerosis or...

...novel MSA is associated with cancer-associated DM and may serve as a diagnostic serological marker for this specific subset."

Kaji and colleagues published their study in Rheumatology (Identification of a novel autoantibody reactive with 155 and 140 kDa nuclear proteins in patients with dermatomyositis: an association with malignancy. Rheumatology, 2007;46(1):25...

...AFP)-derived peptides recognized by cytotoxic T lymphocytes in HLA-A24+ patients with hepatocellular carcinoma (HCC).

"AFP has been proposed as a potential target for T-cell-based immunotherapy for HCC, but the number of its epitopes that have been identified is limited and the status of AFP-specific immunological responses in HCC patients has not been well-characterized.

"To address the issue," wrote E. Mizukoshi and colleagues... analyzed the relationship between its frequency of occurrence and clinical features associated with patients having HCC."

They continued, "Five AFP-derived peptides containing HLA-A\*2402 binding motifs and showing high...

...Analyses of the relationships between AFP-specific CTL responses and clinical features of patients with HCC revealed that AFP epitopes were more frequently recognized by CTLs in patients with advanced HCC correlating to tumor factors or the stage of TNM classification. The analyses of CTL responses before and after HCC treatments showed that the treatments changed the frequency of AFP-specific CTLs," the authors reported...

...epitopes derived from AFP. The newly identified AFP epitopes could be a valuable component of HCC immunotherapy and for analyzing host immune responses to HCC."

Mizukoshi and colleagues published their study in International Journal of Cancer (Identification of alpha-fetoprotein...

New findings from National Taiwan University, Taiwan, described

Pharma Business Week, March 5, 2007, p.2661

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English

RECORD TYPE: FULLTEXT

Word Count:

1149

... C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

"Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University.

"We performed SELDI-TOF MS to identify differentially expressed proteins in HCC serum using weak cation exchange protein chips. Protein characterization was performed by 2-DE separation and nano flow LC-MS/MS. A total of 55 sera were collected from HCC patients and compared with those from 48 patients with chronic hepatitis and 9 healthy individuals.

"A candidate marker of about 8900 Da was detected as differentially expressed in patients with chronic hepatitis C and HCV related HCC. We identified this differentially expressed protein as complement C3a," the authors reported.

"The expression of C3a in HCC sera was further validated by PS20 chip immunoassay and western blotting. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC," the scientists observed.

They concluded, "The combination of SELDI-TOF MS and 2-DE provides...

...Lee and colleagues published their study in Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

7/3,k/39 (Item 9 from file: 135) Links

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0000433458 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Scientists from National Taiwan University, Taiwan, publish new research findings

Science Letter, February 6, 2007, p.2150

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English

RECORD TYPE: FULLTEXT

Word Count:

1044

... C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

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They concluded, "The combination of SELDI-TOF MS and 2-DE provides...

...biomarkers."

Lee and colleagues published their study in (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

7/3,K/40 (Item 10 from file: 135) Links

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0000431300 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Studies from Heinrich-Heine University have provided new information about hepatocellular cancer

Biotech Business Week, February 5, 2007, p.104

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English

RECORD TYPE: FULLTEXT

Word Count:

491

...TEXT: for detection and differentiation of liver fibrosis (F1-F2), liver cirrhosis (F4) and hepatocellular carcinoma (HCC) in patients with chronic hepatitis C virus (HCV). Serum samples of 39 patients with F1/F2 fibrosis, 44 patients with F4 fibrosis, 34 patients with HCC were applied to CM10 arrays and analyzed using the SELDI-TOF ProteinChip System (PBS-IIc...

...after anion-exchange fractionation."

"All patients had chronic hepatitis C and histologically confirmed fibrosis stage/HCC. Data were analyzed for protein patterns by multivariate statistical techniques and artificial neural networks. A 4 peptide/protein multimarker panel (7486, 12,843, 44,293 and 53,598 Da) correctly identified HCCs with a sensitivity of 100% and specificity of 85% in a two way-comparison of HCV-cirrhosis versus HCV-HCC training samples (AUROC 0.943). Sensitivity and specificity for identification of HCC were 68% and 80% for random test samples. Cirrhotic patients could be discriminated against patients...

...using a 5 peptide/protein multimarker pattern (2873, 6646, 7775, 10,525 and 67,867 Da) with a specificity of 100% and a sensitivity of 85% in training samples (AUROC 0...

...a sensitivity and specificity of 80% and 67% for random test samples. Combination of the biomarker classifiers with APRI score and alfa-fetoprotein (AFP) improved the diagnostic performance. The 6646 Da marker protein for liver fibrosis was identified as apolipoprotein C-I. SELDI-TOF-MS technology combined...

7/3,K/41 (Item 11 from file: 135) Links  
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0000421039 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Scientists at Keio University, National Cancer Center Research Institute describe research in cancer immunology

Clinical Oncology Week, January 29, 2007, p.230

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
413

...TEXT: in multistage hepatocarcinogenesis," are detailed in a study published in Clinical Cancer Research. "Hepatocellular carcinoma (HCC) associated with chronic liver disease is known to show an obvious multistage process of tumor progression. We previously identified heat shock protein 70 as a molecular marker of early HCC during investigation of expression profiling in multistage hepatocarcinogenesis," scientists writing in the journal Clinical Cancer...

...associated protein 2 (CAP2), which is also listed as an up-regulated gene in early HCC. We measured the level of CAP2 mRNA by real-time quantitative PCR. We raised a...

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HCC. We raised a polyclonal antibody against CAP2, which showed a single 53-kDa band of strong intensity in the human HCC cell lines and HCC tissues but only a weak band in the noncancerous liver tissues in Western blot analysis. Immunohistochemical examination of CAP2 revealed its significant overexpression in early HCC when compared with noncancerous and precancerous lesions and in progressed HCC when compared with early HCC. Our findings show that CAP2 is up-regulated in HCC when compared with noncancerous and precancerous lesions," wrote R. Shibata and colleagues, Keio University, National...

7/3,K/42 (Item 12 from file: 135) Links  
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0000414604 (USE FORMAT 7 OR 9 FOR FULLTEXT)

New hepatocellular carcinoma study findings recently were reported by scientists in Japan

Hepatitis Weekly, January 22, 2007, p.93

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1100

... 1 (YB-1), the prototype member of this family, is reported to be a prognostic marker of malignant diseases other than hepatocellular carcinoma," wrote M. Yasen and colleagues, Juntendo University.

"The...  
...region was related to the nuclear localization of dbpA."  
DbpA was a more significant prognostic marker of hepatocellular carcinoma than YB-1," the authors reported.  
They concluded, "The T-to-G...

...study from Japan has documented clinical features of hepatitis C virus (HCV)-related hepatocellular carcinoma (HCC) and their association with alpha-fetoprotein (AFP) and protein induced by vitamin K absence or antagonist-II.

"We investigated the differences in clinical features between AFP-predominant HCC and protein induced by vitamin K absence or antagonist-II (PIVKA-II)-predominant HCC, especially regarding host factors thought to contribute to hepatocarcinogenesis in chronic hepatitis C virus (HCV) infection," wrote Y. Yano and colleagues, Saga Social Insurance Hospital.

"HCV-related HCC patients (n=306) were divided into four groups according to median AFP (48.1 ng...

...platelet count (x 10 /ml) were, respectively, 81, 67, and 8.2 in AFP-predominant HCC (group A; n=66) vs. 50, 42, and 11.4 in PIVKA-II-predominant HCC (group P; n=52)," the authors reported.

"Tumor sizes (mm) in groups A and P...

...nodule in group A, and albumin and tumor distribution in group P. PIVKA-II-predominant HCC had a milder hepatitis and a better-preserved platelet count compared with AFP-predominant HCC,"



the investigators wrote.

The scientists concluded, "Considering the strong relation between hepatocarcinogenesis and hepatic inflammation with chronic HCV infection, these differences indicate that hepatocarcinogenic mechanisms in PIVKA-II-predominant HCC may differ from those in AFP-predominant HCC."

Yano and colleagues published their study in (Clinical features of hepatitis C virus-related hepatocellular...

...researchers in Japan reported on a proteomic analysis of autoantibodies in patients with hepatocellular carcinoma (HCC).

"To detect autoantibodies that could be diagnostic markers for HCC, we analyzed serum autoantibodies comprehensively that showed immunoreactivity to proteins in tumor tissue obtained from patients with HCC. Fifteen paired samples of HCC tissue and corresponding nontumorous liver tissue as well as five normal liver tissue samples were ...

...DE gels were identified by LC-MS/MS. These immunoreactive proteins were heat shock 70 kDa protein 1 (HSP70), glyceraldehyde 3-phosphate dehydrogenase, peroxiredoxin, and manganese superoxide dismutase (Mn-SOD).

"In HCC sera, occurrences of autoantibodies against these proteins were 7/15 (46.7%), 5/15 (33...

...statistical analysis, autoantibodies against HSP70, peroxiredoxin, and Mn-SOD showed significantly high-frequency immunoreaction in HCC sera," the scientists wrote.

The authors concluded, "The three antibodies were considered patient-specific antibodies in HCC and may be candidate diagnostic biomarkers for HCC."

Takashima and colleagues published their study in (Proteomic analysis of autoantibodies in patients with hepatocellular...

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0000412955 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Researchers from Chinese University of Hong Kong, People's Republic of China, publish new studies and findings

Pharma Business Week, January 22, 2007, p.1086

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1169

... According to recent research from Hong Kong, People's Republic of China, "A monomeric 17-kDa hemolysin designated as eryngeolysin was isolated from fresh fruiting bodies of the mushroom *Pleurotus eryngii*...

...China, quality of life (QoL) is predictive of survival in patients with unresectable hepatocellular carcinoma (HCC).

"Patients with unresectable HCC have a dismal prognosis. The

objective of this study was to evaluate whether patient-reported...

...and colleagues, Chinese University of Hong Kong.

"Two hundred and thirty-three patients with unresectable HCC (mainly hepatitis B-associated) who were recruited into two separate randomized phase III clinical studies...

...QoL questionnaire, were associated with longer survival," the investigators wrote.

They concluded, "In the studied HCC population, patient-reported baseline QoL provides additional prognostic information that supplements traditional clinical factors, and is a new prognostic marker for survival for patients with unresectable HCC."

Yeo and colleagues published the results of their research in Annals of Oncology (Quality of...

7/3,k/44 (Item 14 from file: 135) Links  
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0000398205 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Researchers' work from University of Tokyo, Japan, adds to cancer treatment body of knowledge

Clinical Oncology week, January 8, 2007, p.532

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1079

...TEXT: using three tumor markers" new findings in hepatocellular cancer. "Three tumor markers for hepatocellular carcinoma (HCC) are available in daily practice in Japan: alpha-fetoprotein (AFP), des-gamma-carboxy prothrombin (DCP...  
...fraction of alpha-fetoprotein (AFP-L3). To elucidate the predictability of these tumor markers on HCC recurrence after curative ablation, we enrolled 416 consecutive patients with naove HCC who had been treated by percutaneous ablation at our department from July 1997 to December...

"Tumor marker levels were determined immediately before and 2 months after the treatment. Complete ablation was defined...

...of Gastroenterology.

The researchers concluded: "Tumor markers pre-and post-ablation were significant predictors for HCC recurrence and can complement imaging modalities in the evaluation of treatment efficacy."

Tateishi and colleagues...

...Japan.

Study 2: Recent research from Japan has reported on the identification of TOMM34 (34 kDa-translocase of the outer mitochondrial membrane), which shows elevated expression in the majority of human...

7/3,K/45 (Item 15 from file: 135) Links  
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0000378742 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Journal reports outline National Taiwan University, Taiwan, research

Life Science Weekly, December 12, 2006, p.901

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1096

... C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

"Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University.

"We performed SELDI-TOF MS to identify differentially expressed proteins in HCC serum using weak cation exchange protein chips. Protein characterization was performed by 2-DE separation and nano flow LC-MS/MS. A total of 55 sera were collected from HCC patients and compared with those from 48 patients with chronic hepatitis and 9 healthy individuals.

"A candidate marker of about 8900 Da was detected as differentially expressed in patients with chronic hepatitis C and HCV related HCC. We identified this differentially expressed protein as complement C3a," the authors reported.

"The expression of C3a in HCC sera was further validated by PS20 chip immunoassay and western blotting. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC," the scientists observed.

They concluded, "The combination of SELDI-TOF MS and 2-DE provides...

...Lee and colleagues published their study in Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

7/3,K/46 (Item 16 from file: 135) Links  
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0000371573 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Researchers from National Taiwan University, Taiwan, report details of new studies and findings

Biotech Business Week, November 27, 2006, p.530

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1143

... C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

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7/3,K/47 (Item 17 from file: 135) Links  
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0000367319 (USE FORMAT 7 OR 9 FOR FULLTEXT)

New data from Kumamoto University, Japan, shed light on cancer treatment research

Cancer Vaccine Week, November 20, 2006, p.12

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1011

HCCcarcinoma.txt

According to investigators in Japan, "Heat shock protein (HSP) 105 is a 105-kDa protein, recently discovered by serological analysis of recombinant cDNA expression libraries prepared from tumor cells...

...hepatocellular carcinoma.

"We previously reported that glypican-3 (GPC3) was overexpressed, specifically in hepatocellular carcinoma (HCC) and melanoma in humans, and it was useful as a novel tumor marker. We also reported that the preimmunization of BALB/c mice with dendritic cells pulsed with...

...GPC3 peptide therefore seemed to be useful for the immunotherapy of HLA-A24+ patients with HCC and melanoma," scientists in Japan report.

"In this report, we investigated whether the GPC3298-306...

...GPC3-reactive CTLs from the peripheral blood mononuclear cells (PBMC) of HLA-A24 (A\*2402)+ HCC patients," said Hiroyuki Komori at Kumamoto University and collaborators in Japan. "In addition, we used...

...restricted GPC3 epitopes to expand the applications of GPC3-based immunotherapy to the HLA-A2+ HCC patients. We found that the GPC3 (FVGEFFTDV) peptide could induce peptide-reactive CTLs in HLA...

...without inducing autoimmunity."

Komori and colleagues reported, "In five out of eight HLA-A2+ GPC3+ HCC patients, the GPC3 peptide-reactive CTLs were generated from PBMCs by in vitro stimulation with...

...peptide-reactive CTLs were also generated from PBMCs in four of six HLA-A24+ GPC3+ HCC patients."

The researchers concluded: "The inoculation of these CTLs reduced the human HCC tumor mass implanted into nonobese diabetic/severe combined immunodeficiency mice. Our study raises the possibility...

...these GPC3 peptides may therefore be applicable to cancer immunotherapy for a large number of HCC patients."

Komori and colleagues published their study in Clinical Cancer Research (Identification of HLA-A2...

7/3,K/48 (Item 18 from file: 135) Links  
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0000337170 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Studies from Israel, Taiwan and France add new findings to diagnostics body of knowledge

AIDS Weekly, September 25, 2006, p.58

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1156

... Recently, non-invasive biomarkers have been used to assess

histological features. The most thoroughly evaluated biomarker is the FibroTest (FT) (AUROC 0.80 for fibrosis stages F2F3F4 vs. F0F1)."

Y. Maor...

...is in concordance with APRI and/or Forns, then we may confidently rely on the biomarker," reported the authors.

"Concordance rate for patients with presumably advanced or minimal liver disease was...

...C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

"Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University.

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7/3,k/49 (Item 19 from file: 135) Links  
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0000327571 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Recent findings in diagnostics described by researchers from Taiwan, the United States and France

Cancer Weekly, August 22, 2006, p.409

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1156

...TEXT: C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

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...to cancer researchers in the United States, the "utility of EBV load as a tumor marker" in NPC patients "suggests that it might also serve as a screening test for individuals...

7/3,K/50 (Item 20 from file: 135) Links  
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0000319893 (USE FORMAT 7 OR 9 FOR FULLTEXT)

New findings from Taiwan, the United States and France in the area of diagnostics described

Cancer Weekly, July 25, 2006, p.393

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
1156

...TEXT: C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

"Although the significant risk factors for HCC are well known from epidemiological studies, diagnosis of this disease at an early stage is difficult, and HCC remains one of the leading causes of cancer death worldwide. Thus, to identify any useful HCC-related biomarkers is still a need," wrote I.N. Lee and colleagues, National Taiwan University.

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HCCcarcinoma.txt

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...to cancer researchers in the United States, the "utility of EBV load as a tumor marker" in NPC patients "suggests that it might also serve as a screening test for individuals...

7/3,K/51 (Item 21 from file: 135) Links  
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0000316265 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Complement C3a may be diagnostic of chronic hepatitis C and HCV-related HCC

Cancer weekly, July 11, 2006, p.139

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
360

Complement C3a may be diagnostic of chronic hepatitis C and HCV-related HCC

...TEXT: C3a may be diagnostic of chronic hepatitis C virus (HCV) and HCV-related hepatocellular carcinoma (HCC).

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HCCcarcinoma.txt

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...Lee and colleagues published their study in Proteomics (Identification of complement C3a as a candidate biomarker in human chronic hepatitis C and HCV-related hepatocellular carcinoma using a proteomics approach. Proteomics...

7/3,K/52 (Item 22 from file: 135) Links  
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0000198973 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Protein profiles find cancer markers in patients with chronic liver disease

Cancer Vaccine Week, March 14, 2005, p.31

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
421

...TEXT: any biological material studied. We used this approach to identify new biomarkers of hepatocellular carcinoma (HCC) in the sera of patients with cirrhosis."

"Sera from 82 patients with cirrhosis, either without (n=38) or with (n=44) HCC, were analyzed by SELDI-TOF MS, and the results of the two groups were compared...

...Anatomical Pathology service wrote.

"The most efficient protein peaks leading to discrimination of patients with HCC were selected (receiver operative characteristic curves). The highest-scoring peak combination was established in a...

...further.

"The intensity of 30 protein peaks significantly differed between cirrhotic patients with and without HCC. An algorithm including the 6 highest-scoring peaks allowed correct classification (presence or absence of HCC) of 92.5% of patients in the test sample set and 90% in the validation sample set. The highest discriminating peak (8900 Da) was purified further and was characterized as the C-terminal part of the V10 fragment of vitronectin.

"An in vitro study suggested that the increase of the 8900-Da fragment in the serum of patients with HCC may proceed from the cleavage of native vitronectin with metalloproteases, a family of enzymes whose activity is enhanced in HCC," researchers commented.

"In conclusion, global protein profiling is an efficient approach that

HCCcarcinoma.txt

enabled us to identify a catalytic fragment of vitronectin as a new serum marker of HCC in patients with chronic liver diseases," they said.

Paradis and colleagues published their study in Hepatology (Identification of a new marker of hepatocellular carcinoma by serum protein profiling of patients with chronic liver diseases. Hepatology, 2005

...

7/3,K/53 (Item 23 from file: 135) Links  
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0000003188 (USE FORMAT 7 OR 9 FOR FULLTEXT)

"Liposomes for Targeted Gene Delivery in Vivo: Intracellular Fate of Liposome-Encapsulated DNA in Rodent Lines."

Gene Therapy Weekly, July 31, 1995, p.13

DOCUMENT TYPE: Research News LANGUAGE: English  
RECORD TYPE: FULLTEXT

Word Count:  
584

...TEXT: the tissue. Part of this DNA follows the subcellular fractionation profile of the mitochondrial matrix marker, malate dehydrogenase. In contrast, 14% of the liposomal DNA taken up by the liver was...

...by covalently attaching a monoclonal antibody (AF-20) which recognizes with high affinity a 180 kDa cell surface glycoprotein that is abundantly expressed on the surface of human HCC cells and that undergoes rapid internalization upon antibody binding. A plasmid containing the lac Z...

7/3,K/54 (Item 1 from file: 357) Links  
Derwent Biotech Res.

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0304067 DBA Accession No.: 2003-05852 PATENT

Diagnosing neoplasm and inhibiting tumor growth, by contacting tissue of mammal with detectably-labeled antibody which binds to human aspartyl (asparaginy) beta-hydroxylase antibody production against enzyme protein, vector expression in host cell for use in disease gene therapy

Author: WANDS J R; DE LA MONTE S M; DEUTCH A H; GHANBARI H A

Patent Assignee: WANDS J R; DE LA MONTE S M; DEUTCH A H; GHANBARI H A 2002

Patent Number: US 20020110559 Patent Date: 20020815 WPI Accession No.: 2003-066676  
( 200306 )

Priority Application Number: US 859604 Application Date: 20010517

National Application Number: US 859604 Application Date: 20010517

Language: English

Abstract: ...a transfection enhancing agent. Preferred kit: The kit further comprises a means (e.g. detectable marker such as radioactive compound or Gd3+ or

# HCCcarcinoma.txt

Fe++, for detecting binding of (I) to the... ..were specifically overexpressed in transformed malignant cells of human hepatocyte origin, the FOCUS hepatocellular carcinoma (HCC) cell line was used as an immunogen to generate monoclonal antibodies (mAb) that specifically or... ..recognize proteins associated with the malignant phenotype. A lamdagt11 cDNA expression library derived from HepG2 HCC cells was screened, ...cultures that were 70-80% confluent demonstrated that constitutively increased levels of AAH expression (85 kDa) in PHAAH-transfected cells were associated with significantly increased levels of PCNA (35 kDa) and Bcl-2 (25 kDa) and reduced levels of p21/waf1 (21 kDa) and p16 (16 kDa). However, the PHAAH stable transfectants also exhibited higher levels of wild-type p53 (53-55 kDa). Although AAH expression (85 kDa protein) in the stable transfectants was increased by only 75-100%, the levels of p16...

7/3,K/55 (Item 2 from file: 357) Links

Derwent Biotech Res.

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0291403 DBA Accession No.: 2002-13250 PATENT

New nucleic acids useful for in vitro detection of homozygous deletion in human chromosome 8p23 of a hepatocellular carcinoma cell line DNA isolation, polymerase chain reaction and high throughput genomic sequence for disease detection and diagnosis

Author: PINEAU P; MARCHIO A; DEJEAN A

Patent Assignee: INST PASTEUR; INSERM INST NAT SANTE and RECH MEDICALE 2002

Patent Number: WO 200224948 Patent Date: 20020328 WPI Accession No.: 2002-383197 (200241)

Priority Application Number: US 234308 Application Date: 20000921

National Application Number: WO 2001IB2274 Application Date: 20010921

Language: English

Abstract: ...are also included for the following: (1) in vitro detecting (M1) of human hepatocellular carcinoma (HCC), by detecting a homozygous deletion in human chromosome 8p23; and (2) a kit (K) for diagnosing HCC comprising (I) having (S1) and (S2).cttgatgtatataaacgcc (A) gctgatcatggtaccacatg (B) cttccagcgtttattgcatc (C) ttgccagtcagtatgtcaag (D) cattaaatttgtagctacag... ..for in vitro detection of a homozygous deletion in human chromosome 8p23 of hepatocellular carcinoma (HCC) within the 345 kilobase region flanked by 370L3SP6 and 315117fg8D loci markers (claimed). EXAMPLE - A... ..cell lines included 58 hepatobiliary and 37 non-hepatobiliary cell lines were extensively cultured. High molecular weight genomic DNAs were extracted and purified. The 95 human cells were assayed for deletion by... ..of 4 amplified products were compared to unfinished high throughput genomic sequences (ntgs). Only D8S262 marker showed 100 % homology with a sequence of human bacterial artificial chromosome (BAC) clone named 188e04...

7/3,K/56 (Item 1 from file: 8) Links

Fulltext available through: STIC Full Text Retrieval Options

Ei Compendex(R)

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11279302 E.I. No: EIP06421017434

Title: Fucosylation of N-glycans regulates the secretion of hepatic glycoproteins into bile ducts

Author: Nakagawa, Tsutomu; Uozumi, Naofumi; Nakano, Miyako; Mizuno-Horikawa, Yoko; Okuyama, Noriko; Taguchi, Tomohiko; Gu, Jianguo; Kondo, Akihiro; Taniguchi, Naoyuki; Miyoshi, Eiji

Corporate Source: Dept. of Biochemistry Osaka University Graduate School of Medicine, Suita, 565-0871 Osaka, Japan

Source: Journal of Biological Chemistry v 281 n 40 Oct 6 2006. p 29797-29806

Publication Year: 2006

CODEN: JBCHA3 ISSN: 0021-9258 eISSN: 1083-351X

DOI: 10.1074/jbc.M605697200

DOI: 10.1074/jbc.M605697200

Language: English

Abstract: Fucosylated alpha-fetoprotein (AFP) is a highly specific tumor marker for hepatocellular carcinoma (HCC). However, the molecular mechanism by which serum level of fucosylated AFP increases in patients with HCC remains largely unknown. Here, we report that the fucosylation of glycoproteins could be a possible...  
...this system might involve an increase in fucosylated AFP in the serum of patients with HCC. copy 2006 by The American Society for Biochemistry and Molecular Biology, Inc. 31 Refs.

Descriptors: \*Proteins; Tumors; Carcinogens; Liquid chromatography; Mass spectrometry; Molecular weight; Biodiversity

Identifiers: alpha-fetoprotein (AFP); Hepatocellular carcinoma (HCC); Fucosylation

7/3,K/57 (Item 1 from file: 266) Links

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00604054

Identifying No.: 1R03CA119313-01A2 Agency Code: CRISP

Novel Machine Learning Methods for Analysis of MALDI-TOF Mass Spectrometry Data

Principal Investigator: RESSOM, HABTOM W

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Performing Org.: GEORGETOWN UNIVERSITY, WASHINGTON, DIST OF COL

Sponsoring Org.: NATIONAL CANCER INSTITUTE

Dates: 2003/01/07 To 2002/28/09 Fy : 2007

Summary: DESCRIPTION (provided by applicant): Hepatocellular carcinoma (HCC) is a common cancer worldwide with as many as 500,000 new cases each year. Between 1981 to 1998, the 5-year patient survival rate with HCC only rose from 2% to 5%. This poor survival rate is in part related to the diagnosis of HCC at advanced stages, where effective therapies are lacking. Early detection of HCC improves patient survival. Patients with cirrhosis are typically the ones to develop HCC. Hence, monitoring cirrhotic patients can potentially decrease the cancer-related mortality rate. The poor sensitivity and specificity of currently available tools has prevented widespread implementation of HCC surveillance. Therefore, additional serum markers that provide higher sensitivity and specificity are needed to improve the detection rate of early HCC. The goal of this collaborative project is to identify a panel of serum biomarkers for early diagnosis of HCC. The long-term goal is to find and validate markers that would help identify HCC at a treatable stage in high-risk population of cirrhotic patients. This project will lead to the development of innovative mass spectral data preprocessing and biomarker selection methods that for the identification of candidate biomarkers specific to HCC by using matrix-assisted laser desorption/ionization-time of flight (MALDI-TOF) mass spectrometry (MS) of low-molecular-weight (LMW) enriched sera. The specific aims of the project are the following: Aim 1: To... ..in replicate spectra of a standard serum and to enhance the prediction accuracy in distinguishing HCC patients from cirrhotic patients or healthy individuals. Aim 2: To develop a novel algorithm that is superior to currently used biomarker selection methods by combining two popular machine learning methods, particle swarm optimization (PSO) and support vector machines (SVMs). The proposed algorithm will be used to identify HCC-specific markers from the preprocessed MALDI-TOF spectra. To avoid confounding effects, peaks will be removed prior to biomarker selection if they are associated with viral infection or covariates such as age, gender, smoking... ..or rural). From the remaining peaks, a small set of candidate biomarkers that accurately distinguishes HCC patients from cirrhotic patients will be identified. The capability of the algorithm to identify a... ..Additionally, the algorithm will identify markers that distinguish various pairs (normal vs. cirrhosis, normal vs. HCC, cirrhosis vs. early-stage HCC, and cirrhosis vs. late-stage HCC). This will enable us to isolate HCC- specific markers and identify disease progression markers. Furthermore, the peptides represented by the selected candidate...

7/3,K/58 (Item 2 from file: 266) Links

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00604048

Identifying No.: 5R03CA119288-02 Agency Code: CRISP

Optimization of enrichment for MALDI TOF/TOF identification of cancer biomarkers

Principal Investigator: GOLDMAN, RADOSLAV

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WASHINGTON, DC 20057

Performing Org.: GEORGETOWN UNIVERSITY , WASHINGTON , DIST OF COL

Sponsoring Org.: NATIONAL CANCER INSTITUTE

Dates: 2009/13/06 To 2006/30/08 Fy : 2007

Summary: ...diagnostic set of peptides and proteins (P/P) in serum of patients with hepatocellular carcinoma (HCC). To identify biomarkers of HCC , we developed enrichment of low molecular weight (LMW) fraction of serum for matrix assisted laser desorption ionization-time of flight (MALDI- TOF... ..well as identification of the peptides of interest by TOF/TOF sequencing. We tested the biomarker discovery method on a pilot set of HCC cases and matched controls, which identified a set of P/P predictive of HCC with greater than 90% prediction accuracy. In this study, we propose to adjust the method... ..liver disease (150 cases, 150 matched controls, 50 cirrhosis), and to begin identification of the biomarker-candidates by sequencing. The samples come from our ongoing case-control study of HCC in Egypt, a country with an epidemic of hepatitis C infection and HCC. Our goal is to identify biomarkers that would improved early detection of HCC and track the natural progression of chronic viral infection to cancer. The identity of the...

7/3,K/59 (Item 3 from file: 266) Links

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00603360

Identifying No.: 1R01CA115625-01A2 Agency Code: CRISP

Proteomic Analysis of Serum in Liver Cancer

Principal Investigator: GOLDMAN, RADOSLAV

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WASHINGTON, DC 20057

Performing Org.: GEORGETOWN UNIVERSITY , WASHINGTON , DIST OF COL

Sponsoring Org.: NATIONAL CANCER INSTITUTE

Dates: 2002/15/07 To 2001/31/11 Fy : 2007

Summary: ...identify a set of peptides and proteins (P/P) in serum associated with hepatocellular carcinoma (HCC). To achieve this goal, we developed enrichment of the low molecular weight (LMW) serum fraction for matrix assisted laser desorption ionization-time of flight (MALDI-TOF/TOF... ..well as identification of the peptides of interest by TOF/TOF sequencing. We tested the biomarker discovery method on a pilot set of HCC cases and matched controls from our unique study of HCC in Egypt, a country with an epidemic of hepatitis C viral infection. The pilot-study identified a set of six peptides that predict HCC with 96% prediction accuracy. In this study, we propose to expand the project and focus... ..of liver cirrhosis. Our goal is to identify biomarkers that would improve early detection of HCC in this high-risk group and track the natural progression of chronic viral hepatitis to cancer. We will cross validate our ongoing study in Egypt with a study of HCC in the US population; verify peptide- identification by MALDI-TOF/TOF sequencing, complementary liquid chromatography... ..and immunodepletion; develop improved methods for quantification of the peptides; and test performance of the biomarker-candidates. Defining clinically applicable biomarkers of early-stage cancer has potentially far-reaching consequences for...

7/3,K/60 (Item 4 from file: 266) Links

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00599661

Identifying No.: 2R01CA093840-05A2 Agency Code: CRISP  
 Genesis of Liver Carcinomas with Oval Cell Traits

Principal Investigator: HIXSON, DOUGLAS C

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Performing Org.: RHODE ISLAND HOSPITAL (PROVIDENCE, RI) , PROVIDENCE , RHODE ISLAND

Sponsoring Org.: NATIONAL CANCER INSTITUTE

Dates: 2004/01/02 To 2005/31/12 Fy : 2007

Summary: ...role in hepato-and cholangio-carcinogenesis. Over the past 4 years, our studies of cholangiocyte marker positive (CMP), bipotent, fetal liver epithelial cells (FLEC) have yielded novel monoclonal antibody based schemes... ...oval cells and will retain this capacity following spontaneous transformation in vitro and progression to HCC in vivo. In Specific Aim 1, we will employ a rapid transplantation model that replaces... ...with mitomycin C (mitoC/PH) to test the hypothesis that the expression of the cholangiocyte marker OC.4, a marker first seen at 2 after birth, identifies mature CMP-LEC that have a greatly diminished... ...BDEC will undergo incomplete hepatocytic differentiation in mitoC/PH treated rats and progress to CMP-HCC. Spontaneous transformation of CMP-LEC will be accelerated by selection on plastic and/or soft... ...invasive growth. Specific Aim 4 will continue with the characterization of BD.1, a 170 kDa protein expressed by cholangiocytes but not oval cells that forms stable complexes with CLIP170, a...

7/3,K/61 (Item 1 from file: 149) Links

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03392460 Supplier Number: 168416261 (USE FORMAT 7 OR 9 FOR FULL TEXT )

Endosomal Trafficking and Proprotein Convertase Cleavage of cis Golgi Protein GP73 Produces Marker for Hepatocellular Carcinoma.(Author abstract)(Report)

Bachert, Collin; Fimmel, Claus; Linstedt, Adam D.

Traffic , 8 , 10 , 1415(9)

Oct ,

2007

Document Type: Report; Author abstract Publication Format: Magazine/Journal

ISSN: 1398-9219

Language: English

Record Type: Abstract Target Audience: Academic

Endosomal Trafficking and Proprotein Convertase Cleavage of cis Golgi Protein GP73 Produces Marker for Hepatocellular Carcinoma.(Author abstract)(Report)

Author Abstract: ...2007.00621.x

Byline: Collin Bachert (1), Claus Fimmel (2), Adam D. Linstedt (1,)

Keywords:

biomarker; Golgi; GP73; endosome; furin; hepatocellular carcinoma

Abstract:

Serum GP73 levels are significantly increased in patients with hepatocellular carcinoma ( HCC), potentially providing a marker for early detection. However, GP73 is an integral membrane protein localized to the cis Golgi... ...was released from cultured cells and compared with the Golgi-localized full-length protein, the molecular weight was slightly reduced, suggesting that cleavage releases the GP73 ectodomain. Sequence analysis revealed a proprotein... ...cleavage, resulting in GP73 secretion, and provides a molecular mechanism for its presence as a serum biomarker for HCC.

Author Affiliation:

(1)Department of Biological Sciences, Carnegie Mellon University, Pittsburgh, PA 15213, USA

(2...

7/3,K/62 (Item 2 from file: 149) Links

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02944498 Supplier Number: 106422241 (USE FORMAT 7 OR 9 FOR FULL TEXT )  
The role of genetic polymorphisms in environmental health. (Research Review).

Kelada, Samir N.; Eaton, David L.; Wang, Sophia S.; Rothman, Nathaniel R.; Khoury, Muin J.

Environmental Health Perspectives ; 111 , 8 , 1055(10)

June 15 ,

2003

Publication Format: Magazine/Journal

ISSN: 0091-6765

Language: English

Record Type: Fulltext Target Audience: Academic

Word Count: 11400 Line Count: 01145

...sub.1), a mycotoxin found in some foodstuffs, and an established risk for hepatocellular carcinoma (HCC), especially when combined with hepatitis virus exposure (Ross et al. 1992). The biotransformation of aflatoxin...

...a lack of enzyme and less active enzyme, respectively, was shown to result in increased HCC risk (London et al. 1995; McGlynn et al. 1995). Similarly, functional variants in CYP1A2 and...

...phase I metabolism (epoxidation) of aflatoxin (B.sub.1), would also be expected to modify HCC risk in exposed persons, although epidemiologic data for this have not yet been gathered. Biomarker studies of urinary aflatoxin metabolites and aflatoxin--albumin adducts in peripheral blood have validated their use as indicators of HCC risk at the group level, and polymorphisms in GSTM1 and EPHX1 yielded higher levels of...

...studies of exposures to environmental toxicants and toxins. Stratification of a studied health outcome or biomarker by relevant genotype (or phenotype) may allow for detection of different levels of risk among...

...epidemiologic studies and ultimately contributed to the development of a chemoprevention strategy for aflatoxin-induced HCC.

Additionally, studies on the health effects of exposure to regulated environmental contaminants that incorporate genetic... profiles

|                     |                           |         |
|---------------------|---------------------------|---------|
| Alcohol             | Esophageal cancer         | ALDH2   |
| Aflatoxin (B.sub.1) | Aflatoxin-albumin adducts | CYP1A2  |
|                     |                           | CYP3A4  |
|                     | HCC                       | GSTM1   |
|                     |                           | EPHX1   |
| Heterocyclic amines | Colon cancer              | NAT2    |
|                     | Breast cancer             | NAT2    |
|                     |                           | SULT1A1 |
| Aromatic amines     | Bladder cancer...         |         |

...Binkova B, Lewtas J, Miskova I, Rossner P, Cerna M, Mrackova G, et al. 1996. Biomarker studies in northern Bohemia. Environ Health Perspect 104:591-597.

Botto LD, Khoury MJ. 2001...

...Tokyo 110:559-565.

Heath EM, Morken NW, Campbell KA, Tkach D, Boyd EA, Strom DA. 2001. Use of buccal cells collected in mouthwash as a source of DNA for clinical...

...and XRCC1 genes associated with ionizing radiation sensitivity.

Carcinogenesis 22:917-922.

Humbert R, Adler DA, Disteché CM, Hassett C, Omiecinski CJ, Furlong CE. 1993. The molecular basis of the human...CF, Haugen A, Valerio F, et al. 1998. Urinary excretion of 1-hydroxypyrene as a marker for exposure to urban air levels of polycyclic aromatic hydrocarbons. Cancer Epidemiol Biomarkers Prev 7...

...337-340.

Richeldi L, Sorrentino R, Saltini C. 1993. HLA-DPB1 glutamate 69: a genetic marker of beryllium disease. Science 262:242-244.

Rosipal R, Lamoril J, Puy H, Da Silva V, Gouya L, De Rooij FW, et al. 1999. Systematic analysis of coproporphyrinogen oxidase...

...Rothman N, Stewart WF, Schulte PA. 1995. Incorporating biomarkers into cancer epidemiology: a matrix of biomarker and study design categories. Cancer Epidemiol Biomarkers Prev 4:301-311.

Rothman N, Wacholder S...

...Rebeck TR. 1999. Collection of genomic DNA by buccal swabs for polymerase chain reaction-based biomarker assays. Environ Health Perspect 107:517-520.

Ward MH, Nuckols JR, Weigel SJ, Maxwell SK...

...Perspect 102:215-219.

Whyatt RM, Perera FP, Jedrychowski W, Santella RM, Garte S, Bell DA. 2000. Association between polycyclic aromatic hydrocarbon-DNA adduct levels in maternal and newborn white blood...

7/3,K/63 (Item 3 from file: 149) Links

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02923077 Supplier Number: 80744269 (USE FORMAT 7 OR 9 FOR FULL TEXT )

Variability in Aflatoxin-Albumin adduct levels and effects of hepatitis B and C virus infection and glutathione S-transferase M1 and T1 genotype. (Articles).

Ahsan, Habibul; Wang, Li-Yu; Chen, Chien-Jen; Tsai, Wei-Yann; Santella, Regina M. Environmental Health Perspectives , 109 , 8 , 833(5)

August ,  
2001

Publication Format: Magazine/Journal

ISSN: 0091-6765

Language: English

Record Type: Fulltext Target Audience: Academic

Word Count: 5183 Line Count: 00477

Text:

...the intraindividual variability in AF(B.sub.1)-albumin adducts, the most reliable long-term biomarker of AF(B.sub.1) exposure, and whether the baseline or follow-up adduct levels...

\*\*\*\*\*

Hepatocellular carcinoma (HCC) is one of the leading causes of cancer-related mortality in the world. In Taiwan, it is the most common cause of cancer death among men (1). Risk factors for HCC include chronic hepatitis B virus (HBV) infection, hepatitis C virus (HCV) infection, cigarette smoking, and...

...albumin adduct, but AF(B.sub.1)-albumin adducts have been considered the



most reliable biomarker of AF(B.sub.1) exposure in humans (5).  
Because of a relatively long half...

...months (5). AF(B.sub.1)-albumin adduct has been shown to be related to  
HCC risk in a dose-response fashion among HBV surface antigen  
(HBsAg) carriers, and the biological...

...Hu-Hsi, Ma-Kung, and Pai-Hsa) in Penghu Islets, an area with the highest  
HCC incidence in Taiwan, but in a manner so that half (n = 132) of  
them were...

...status could not be determined.

#### Discussion

Although HBV infection is the key etiologic element in HCC,  
AF(B.sub.1) exposure is an important cofactor in HCC carcinogenesis.  
AF(B.sub.1)-albumin adduct is considered a reliable indicator of the  
biologically...

...recruitment (i.e., at time 1), the respondents were briefed about the  
risk factors for HCC, including hepatitis viruses and dietary  
aflatoxin exposure. Therefore, one possibility is that the participants...

...nested study carried out in Shanghai that found an association between  
aflatoxin-albumin adducts and HCC found no association with dietary  
aflatoxin consumption based on in-person food frequency interview combined  
...

...of 42 residents of Guangxi Province in China established that albumin  
adducts were a valid marker of aflatoxin exposure by comparing  
adduct levels to the levels of aflatoxin in portions of...

...Chen CJ, Yu MW, Liaw YF, Wang LW, Chiamprasert S, Matin F, Hirvonen A,  
Bell DA, Santella RM. Chronic hepatitis B carriers with null  
genotypes of glutathione S-transferase M1 and...risk of hepatocellular  
carcinoma in Taiwan. Int J Cancer 87:620-625 (1996).

(9.) Bell DA, Taylor JA, Paulson DF, Robertson CN, Mohler JL,  
Lucier GW. Genetic risk and carcinogen exposure...

7/3,K/64 (Item 4 from file: 149) Links

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02915238 Supplier Number: 67183911 (USE FORMAT 7 OR 9 FOR FULL TEXT )

Applying Biomarker Research.

Bennett, David A.; Waters, Michael D.  
Environmental Health Perspectives , 108 , 9 , 907  
Sept ,  
2000

Publication Format: Magazine/Journal

ISSN: 0091-6765

Language: English

Record Type: Fulltext Target Audience: Academic

Word Count: 4152 Line Count: 00364

Applying Biomarker Research.

...to understand environmentally mediated disease and to improve the  
process of risk assessment. A valid biomarker could also be  
considered a key event linking a specific environmental exposure to a  
health...

...most closely related to the disease.

(Figure 1 ILLUSTRATION OMITTED)

Over the last decade the biomarker model has resulted in considerable research enterprise and nourished and challenged the emerging field of...

...field and their extension into the clinical environment. At the same time, much of the biomarker research has remained confined to the laboratory, with the promise of successful applications to improve public health or mitigate disease largely unmet.

A biomarker should allow better measurements of exposure or earlier identification of health effects. Biomarkers can provide...

...U.S. EPA held "Biomarkers: Taking Stock, An EPA/NIEHS In-House workshop on Applying Biomarker Research" on 30-31 August 1999 in Chapel Hill, North Carolina. Approximately 90 participants explored biomarker research through presentations by invited plenary speakers, posters on individual research projects, and breakout discussion...

...precursor step that is a necessary element of the mode of action or is a marker for such an element. Examples of key events include metabolism, receptor--ligand changes, increased cell...

...to accidental mercury or methylparathion exposures. Lead in blood, plasma, or bone is an excellent biomarker of exposure and potentially of effects. Lead biomarkers also illustrate a challenge in understanding the...

...backward to look at populations that have exposures to various agents to see if the biomarker rises as their exposure rises. In either case establishing linkage between exposure and disease is...

...relating a) exposures to aflatoxin (B.sub.1), b) the etiology of human hepatocellular carcinoma (HCC), and c) intervention with oltipraz as a chemo-preventive agent for HCC (8). Biomarkers included aflatoxin--albumin adducts in serum and aflatoxin--mercapturic acid excreted in urine...

...one might develop an hypothesis to test. This was appropriate in the early stages of biomarker validation. Our understanding of the science supporting molecular epidemiology has now advanced so that we...

...studies and the regulatory community trying to apply this information. An intended use of the biomarker may be in the clinical setting, where the focus is on the individual and there...

...fetus. Environ Health Perspect 107(suppl 3):451-460 (1999).

(10.) El-Masri HA, Bell DA, Portier CJ. Effects of glutathione transferase polymorphism on the risk estimates of dichloromethane to humans ...

...NW, Washington DC 20460. Telephone: (703) 603-8759. Fax: (703) 603-9146. E-mail: bennett.da@epa.gov

(\*) On assignment from the U.S. EPA Office of Emergency and Remedial Response...

7/3,K/65 (Item 5 from file: 149) Links

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01713503 Supplier Number: 19696795 (USE FORMAT 7 OR 9 FOR FULL TEXT )

Hepatitis G virus: is it a hepatitis virus?

Cheung, Ramsey C.; Keefte, Emmet B.; Greenberg, Harry B.

The Western Journal of Medicine , v167 , n1 , p23(11)  
 July ,  
 1997

Publication Format: Magazine/Journal; Refereed

ISSN: 0093-0415

Language: English

Record Type: Fulltext; Abstract Target Audience: Professional

Word Count: 9257 Line Count: 00752

...antibodies to recombinant HGV putative envelope protein E2 was recently described as a potential serological marker for immunity to HGV infection.(20) Antibodies to E2 were found in 9% of 80...

...became HGV RNA negative. These data suggest that antibodies to E2 might be a serological marker for diagnosing recovery from HGV infection, but further studies are necessary. Detection of HGV RNA...44) The disease in the three patients with HGV RNA as the only identifiable viral marker was mild, and only one remained persistently viremic with elevated SGPT levels for 4 years...positive posttransplant.

#### Hepatocellular Carcinoma

Serum HGV RNA has been found in patients with hepatocellular carcinoma (HCC). HGV RNA was found in only one of 28 HCV-infected patients with HCC.(77) Among patients transplanted with HCC. HGV RNA was found in four of 34 patients of whom three were coinfectd with ...

...with HBV.(78) GBV-C RNA was found in 11 of 111 (10%) cases of HCC in Japan, but 10 of 11 were coinfectd with HCV and one with HBV. HGV...

...found as the only infectious viral agent in seven (8%) of 85 Austrian patients with HCC.(79) Since the majority of patients with HCC were coinfectd with either HBV or HCV, the role of HGV in the etiology of HCC is unclear. Therefore, with the exception of the Austrian study,(71) HGV is unlikely to be a major etiologic agent of HCC.

#### Response of HGV to Antiviral Therapy

There are no data on treatment of patients who...Med 1996;  
 336:747-754

(45.) Aach RD. Stevens CE, Hollinger FB, Mosley JW, Peterson DA , Taylor PE. et al. Hepatitis C virus infection in post-transfusion hepatitis. N Engl J...

7/3,K/66 (Item 6 from file: 149) Links

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01438001 Supplier Number: 14699208 (USE FORMAT 7 OR 9 FOR FULL TEXT )

Molecular virology and pathogenesis of hepatitis B.

Lau, Johnson Y.N.; Wright, Teresa L.

The Lancet , v342 , n8883 , p1335(6)

Nov 27 ,

1993

Publication Format: Magazine/Journal

ISSN: 0099-5355

Language: English

Record Type: Fulltext; Abstract Target Audience: Professional

Word Count: 4638 Line Count: 00403

...HBV-associated hepatocarcinogenesis, and current and future approaches to treatment.

Testing

Assays

Clinical significance

|   |                 |   |
|---|-----------------|---|
|   |                 | HCCcarcinoma.txt  |
| HBsAg<br>of HBV infection   |                 | Marker  |
| Anti-HBs  |                 | Immune against/protected<br>from HBV([dagger])  |
| HBeAg   | RIA/EIA/RPHA... |   |
| ...and HBsAg. The smallest transcript (0.7 kb) encodes the X protein. |                 |   |
| HBV protein   | Size (kDa)(*)   | Function, clinical<br>significance  |
| Core  | p21             | Protein of core particle;<br>kinase activity (role in<br>replication?)  |
| Pre-core (HBeAg)  | p25[→]p p16     | Pre-core/core cleaves to<br>HBeAg; good marker of<br>active<br>HBV replication and role<br>in inducing<br>immunotolerance |
| Surface (HBsAg)   | p24/gp27        | Envelope protein...   |

...Even though the pre-core sequence is not essential for replication, HBeAg is a good marker of active HBV replication because the pre-core/core gene product is generated from the...enhancer and hence replication.

#### Hepatocarcinogenesis

The strong association of persistent HBV infection and hepatocellular carcinoma (HCC) is intriguing, yet poorly understood. Although the relative risk of HCC developing in HBV carriers is as high as 100 times that in matched controls, it usually takes decades for HCC to emerge. Since HBV integration can occur early, this suggests that HBV does not have...

...c-ras, have been implicated but none has been shown to be consistently activated in HCC. The strong association of cirrhosis with HCC suggests that the common pathway for hepatocarcinogenesis may be chronic hepatic injury and regeneration, which in some way promote the induction or selection of a malignant clone.

HCC may well be a heterogeneous disease with cellular oncogene and common pathway models both operating...

...Further understanding of this heterogeneity may help in the establishment of the mechanisms involved in HCC--as happened with our understanding of the pathobiology of lymphoma and leukaemia in the wake ...

7/3,K/67 (Item 1 from file: 444) Links  
New England Journal of Med.  
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00126660  
Copyright 2005 by the Massachusetts Medical Society

Case 23-2005: A 57-Year-Old Man with a Mass in the Liver (Case Records of the Massachusetts General Hospital)

Tanabe, Kenneth K.; Blaszkowsky, Lawrence S.; Chung, Raymond T.; Blake, Michael A.; Lauwers, Gregory Y.  
The New England Journal of Medicine  
Jul 28, 2005; 353 (4), pp 401-410  
Line Count: 00429 word Count: 05928

Text:

# HCCcarcinoma.txt

...products from the precore or core region yield secreted hepatitis B e antigen (HBeAg), a marker of active replication that can also be confirmed by molecular tests for circulating HBV DNA... ..growth control and set the stage for malignant transformation in the form of hepatocellular carcinoma (HCC). The illustration is adapted from Chisari (Ref. 4) \*.\*\*FIGURE OMITTED...

## Cited References

...hepatocellular carcinoma. Am J Surg 1995;169:28-34.  
34. Bilimoria MM, Lauwers GY, Doherty DA, et al. Underlying liver disease, not tumor factors, predicts long-term survival after resection of...

? d s

| Set | Items | Description   |
|-----|-------|---|
| S1  | 78025 | S HEPATOCELLULAR ADJ CARCINOMA OR HCC                                     |
| S2  | 696   | S S1 AND (DALTON OR KILODALTON OR KDA OR DA)                              |
| S3  | 109   | S S2 AND (SERUM ADJ MARKER OR SERUM ADJ BIOMARKER OR MARKER OR BIOMARKER) |
| S4  | 56    | RD (unique items)   |
| S5  | 951   | S S1 AND (DALTON OR KILODALTON OR KDA OR DA OR MOLECULAR(W)WEIGHT)        |
| S6  | 128   | S S5 AND (SERUM(W)MARKER OR SERUM(W)BIOMARKER OR MARKER OR BIOMARKER)     |
| S7  | 67    | RD (unique items)   |